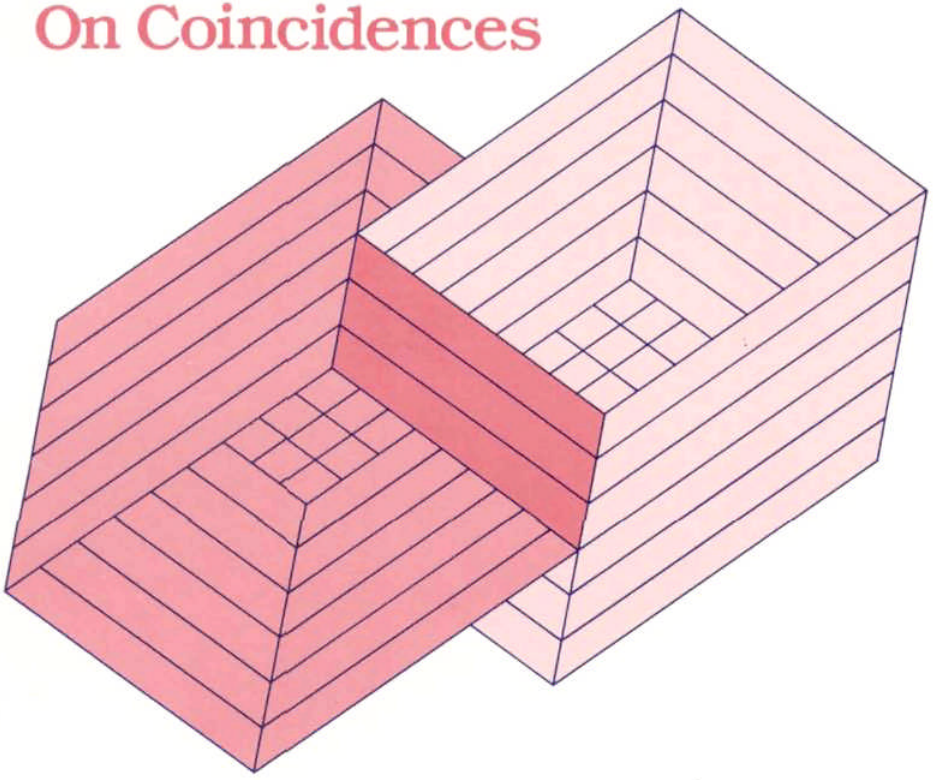
the Skeptical Inquirer

On Coincidences



Anecdotes and ESP Beliefs
Tenhaeff and Croiset: The Fraudulent Link
Creationists and the Flat Earth

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the Skeptical Inquirer

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News and Comment

Sasquatchsickle: The Monster, the Model, and the Myth

The shopping mall advertisement in the *Providence* (R.I.) *Sunday Journal* was, to say the least, tantalizing.

"Is the Bigfoot Creature Only a Myth?" it asked, inviting readers to see what may be "the missing link between man and the apes . . . still frozen in solid ice." The ad said that for a mere 50 cents one could behold "the same mysterious specimen that is the subject of books, magazines, movies and scientific journals published throughout the world."

The exhibit turned out to be a glass-topped, refrigerated coffin containing what appeared to be a grotesque, hairy human body encased in ice. Frank B. Hansen, a quick-witted Minnesotan who operates the exhibit, says he is paid to show the creature on behalf of an anonymous multimillionaire who wants the public to get a chance to see it before scientists have the opportunity to prove its authenticity. He says the creature has figured prominently in Bigfoot books and relates rumors of how it was found by Pacific fishermen.

In addition, Hansen sells copies of a 1969 *Argosy* article that quotes Bernard Heuvelmans, a Belgian scientist who has searched for the Abominable Snowman and similar creatures, as saying that the ice creature is "most probably" a Neanderthal man that had been alive less than five years previously.

Although Heuvelmans never directly examined the ice creature, *Argosy* science writer Ivan T. Sanderson wrote: "I defy anybody to fool Bernard Heuvelmans in a case like this. You just cannot 'make' a corpse like this . . . [It] is the genuine article."

Hansen himself, who has exhibited the beast off and on for 15 years, is more evasive. He won't say what it is. On the back page of the *Argosy* reprint he indicates that the "owner" fends off government attempts to examine the ice creature by claiming that it is a "fabricated illusion." In addition, the taped coffinside narration quickly adds that "some scientists believe this [the "fabricated illusion" claim] to be impossible."

But on the surface, Hansen's story has a few holes in it.

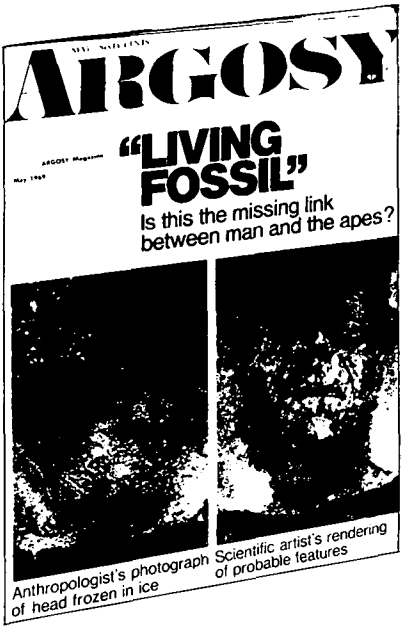
He claims the odor of decaying flesh convinced Heuvelmans of the creature's authenticity. Hansen says the smell escaped through the hollow hairs sticking through the ice. Yet primate hair isn't hollow. At one point he told me that scientists aren't allowed to examine the creature because they

would have to mutilate it to confirm its authenticity. Apparently he never heard of a needle biopsy. Also, Hansen tells differing stories about whether he knows what's in the coffin or not.

After a *Sunday Journal* story on the creature (August 23, 1981), in which two Brown University anthropologists looked at it and agreed that it was a "fabricated illusion" and a "hoax" the mystery of the ice creature became a little less mysterious.

A reader put me in touch with Leonard C. Bessom, Jr., a retired paleontologist for the Los Angeles County museum. Bessom said that in the early 1960s he was asked to make a model of a Cro-Magnon-type man that would be frozen and exhibited. Reluctant to tarnish the museum's credibility, he declined.

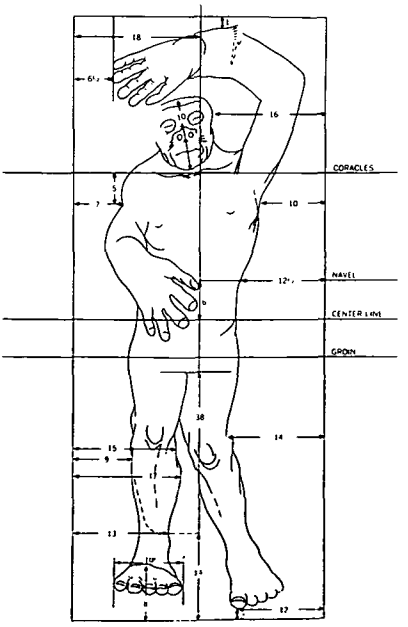
The creature, Bessom said, was eventually made by Howard Ball, a top model-maker for Disneyland (he did the dancing figures for the "Small World" and other attractions), whose specialty was prehistoric creatures. Ball's widow, Helen, and son, Kenneth, now an engineer, confirmed the story.


ARGOSY
"LIVING FOSSIL"
Is this the missing link between man and the apes?
Anthropologist's photograph of head frozen in ice
Scientific artist's rendering of probable features

"We modeled it after an artist's conception of Cro-Magnon man and gave it a broken arm and a bashed-in skull with one eye popped out," said Kenneth Ball, who helped his father make the rubber figure. Ball said he believed that the hair was put on in Mexico.

This past year the ice creature hit malls in Florida, North and South Carolina, Ohio, New Jersey, Maine, New Hampshire, and Massachusetts before going to the Washington area, where the *Washington Post* apparently swallowed Hansen's story. My favorite section of that account (August 21) comes when writer Michael Kernan reports Hansen's claim that he is only showing a replica of the original beast, a claim that—like most of Hansen's spiel—raises more questions than it answers.

"If you ask him what we are



Drawing of the "creature."

looking at, the model or the original," Kernan writes, "[Hansen] smiles and says carefully, 'We're claiming it's a fabricated illusion.' Even while the odor of dead flesh drifts up from the coffin."

When I called Hansen to tell him about the Balls' claim, he confirmed that Howard Ball once made a figure for him, but insisted that it was "discarded." When Hansen was told that Ball's wife and son said they had recognized Howard Ball's creation from the *Argosy* article, he responded: "They can say whatever they want to."

"I never thought it would get so carried away," said Helen Ball, recalling her surprise when the *Argosy* article came out.

As for Hansen's stories about the mysterious millionaire and his hints that he's only showing a copy of the original creature, Kenneth Ball says that the ice creature was the result of "my dad's imagination."

"This is the original," he said. "There was no anonymous millionaire."

—*C. Eugene Emery, Jr.*

Gene Emery is a science and medical writer for the Providence Journal.

Psi and the Science Committee

"The esoteric world of parapsychology may now merit a 'serious assessment' by Congress to help decide whether further research is warranted, according to a study prepared for the House Science and Technology Commitee." So began an Associated Press report appearing in newspapers on July 19, 1981. One such paper gave the article an eight-column head: "Parapsychology May Warrant Federally Funded Research, Study Says."

What was this? A House Science and Technology Committee report entirely on parapsychology? Well, not quite.

The report that garnered the headline was actually the 530-page "Survey of Science and Technology Issues, Present and Future." All House committees dealing with substantive issues are required by law to conduct "futures research and forecasting." This was this committee's staff report. It examined 16 major categories of science and technology issues (Agriculture, Biotechnology, Communications, Materials, Manpower Training, Water Management, etc.) with some 200 "sub-issues" (Family Farm Protection, Terrorism, Home Information Systems, Well-Patient Care, the Greying of America, Sunbelt-Snowbelt Issues, Satellite Power Systems, etc.).

One of those 200 sub-issues was labeled "Research on the Physics of Consciousness (Parapsychology)." It was given less than one and a third pages of space, but it was this section that the AP article focused on almost exclusively.

The report's introduction discloses an essential difference in methodology from previous such surveys. This time they made use of an "outside input" operation "by which the issues are provided almost exclusively through sources outside the Committee."

In response to an inquiry, Lillian Trippett of the committee's staff pointed out that only a tiny section of the report was devoted to psi. She emphasized that the report was a staff study. It evolved from responses received from many persons. More than 300 participants told the staff what they considered to be the important issues. She said the psi section was not an agenda item for action by the committee.

Judging from the text of the report's brief section on physics of consciousness, its preparer is either a

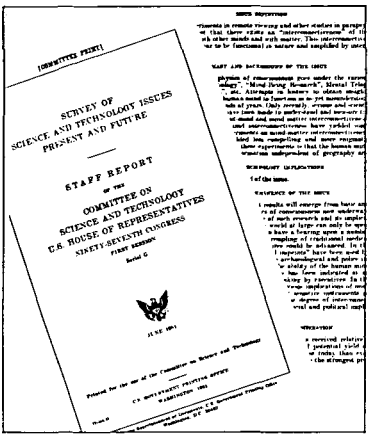
strong proponent of paranormal phenomena or listened to those who are.

"Recent experiments in remote viewing and other studies in parapsychology suggest that there exists an 'interconnectiveness' of the human mind with other minds and with matter," the section begins. "This interconnectiveness would appear to be functional in nature and amplified by intent and emotion." This is the party line of pro-paranormal researchers.

"Experiments on mind-mind interconnectiveness have yielded some encouraging results," says the report. "Experiments on mind-matter interconnectiveness (psychokinesis) have yielded less compelling and more enigmatic results. The implication of these experiments," says the report, somewhat expansively, "is that the human mind may be able to obtain information independent of geography and time."

It goes on to acknowledge that there is no certainty about what will emerge from research into such matters. Nevertheless, it speculates on possible applications of psychic powers. It does not fail to mention the hypothetical defense connection, which, according to columnist Jack Anderson and his staff, is being strongly promoted by ardent psi-devotees in Pentagon corridors. "In the area of national defense, there are the obvious implications of one's ability to identify distant sites and affect sensitive instruments or other humans."

The section reads as if it were written by a hungry parapsychologist. It notes correctly that research in this area "has received relatively low funding largely because the credibility and potential yield of such research is widely questioned," but adds, without supportive evidence, "although less today than ever before." It acknowledges that the quality of research "that even the strongest proponents of such research believe is necessary has been lacking" but attributes that lack in part to "low funding."


SURVEY OF
SCIENCE AND TECHNOLOGY ISSUES
PRESENT AND FUTURE

STAFF REPORT
OF THE
COMMITTEE ON
SCIENCE AND TECHNOLOGY
U.S. HOUSE OF REPRESENTATIVES
NINETY-SEVENTH CONGRESS

It then raises the psi-gap argument. "Given the potentially powerful and far-reaching implications of knowledge in this field, and given that the Soviet Union is widely acknowledged to be supporting such research at a far higher and more official level, Congress may wish to undertake a serious assessment of the research effort in this country."

Jack Anderson's co-workers are continuing to probe the connections between certain government agencies and well-organized aggressive proponents of the reality of paranormal forces. More revelations into the techniques and tactics of some of these proponents will soon be released. In the meantime, it appears that the preparer of the House Science and Technology Committee's little section on psi phenomena is, unwittingly or not, fairly firmly in their camp.

No psychic researchers or organizations are mentioned in the report's front matter on contributors and acknowledgments. Yet it is worth

noting that the psi section lists at the end only two publications under "Selected Information Sources." One is *Mind-Reach*, the book by SRI International paraphysicists Russell Targ and Harold Puthoff (the latter a Scientologist), who have conducted experiments on remote viewing that have been highly disputed. The other is a report of a California organization, the Foundation for Mind-Being Research.

—*Kendrick Frazier*

UFO Proponents and the CIA: Conspiracy Theorists Rise Again

When the late Senator Joseph McCarthy charged that there had been treason in high places in the Truman Administration, his allegations made the front pages. A far more serious charge, leveled against the Truman, Eisenhower, Kennedy, Johnson, Nixon, Ford, and Carter administrations, has gone unnoticed by the nation's news media.

The charge comes from Peter Gersten, the lawyer whose Freedom of Information Act lawsuits prompted the Central Intelligence Agency to make public its dusty UFO files in late 1978. [See *SI*, Spring 1980, p. 2.] In an article in the May-June 1981 issue of *Frontiers of Science* magazine, published by J. Allen Hynek's Center for UFO Studies, Gersten charges that information made public through FOIA actions has provided "overwhelming evidence . . . that Unidentified Flying Objects *do* exist, and that some of them are unconventional craft that (1) pose a threat to national security and (2) perform beyond the range of present-day technological development."

"Furthermore," Gersten charges, "there is evidence that our government has continually misinformed the public concerning the true significance of the 'UFO problem.' . . . The evidence is clear and convincing that the federal government has systematically misinformed the American people about the real threat to our national security posed by such UFO encounters."

If Gersten is correct, it suggests that top civil and military officials of the Truman, Eisenhower, Kennedy, Johnson, Nixon, Ford, and Carter administrations all are guilty of high treason or gross incompetence, or both.

On February 5, 1979, about six weeks after Gersten had received nearly 900 pages of UFO file material from the CIA, and after I myself had had a chance to study the same documents, I telephoned Gersten to ask whether he had found any evidence of a coverup. Gersten replied: "As far as a conspiracy is concerned there is no indication at all that there is a conspiracy. And as far as a coverup—coverup meaning that they are not volunteering documents—I would think that the documents they had released seriously damage the theory of a coverup."

As recently as September 5, 1980, following a press conference in Washington sponsored by the Fund for UFO Research, at which Gersten spoke, I asked him whether he had found any evidence of a government coverup. Gersten replied: "There is no evidence I can see that the government is intentionally withholding anything or misleading anybody. I think it's just negligence on their part, bureaucratic bungling, bureaucratic inefficiency."

In the same issue of *Frontiers of Science*, immediately following Gersten's article, is one by longtime UFOlogist Richard Hall, whose study of the same CIA papers led him to quite a different conclusion. Hall was an official of NICAP (National Investigations Committee of Aerial Phenomena) at the time it was the

nation's largest UFO group, and he currently edits the monthly publication of MUFON (Mutual UFO Network), currently the nation's largest UFO organization.

Hall charges that "the CIA's professed noninterest in UFOs is untrue." In support of this contention he quotes from internal, personal memoranda exchanged by unidentified CIA employees in April 1976, when someone submitted some material to the CIA and asked whether it should be "classified." (From portions of the memoranda that are not censored for reasons of privacy, I suspect that the submitted idea involved a concept for a novel propulsion system that the submitter suspected was being used by UFOs.) Hall quotes a portion of one of the memoranda in his article: "At the present time, there are offices and personnel within the Agency who are monitoring the UFO phenomena . . . not currently on an official basis."

What Hall chose *not to include* from the same memo was the following: "It does not seem that the government has any formal program in progress for the identification/solution of the UFO phenomena." The same memo concluded: "We wish to stress again that there does not now appear to be any special program on UFOs within the intelligence community . . ." This, too, Hall chose to omit.

Despite the foregoing, Hall concluded his article as follows: "There can be no doubt that the CIA is stonewalling. If *this* is all the case files developed in more than thirty years, I would have to conclude that the CIA is totally inept. And, of course, it isn't."

Hall refuses to consider the possibility that the CIA has told the truth, as confirmed by the papers released. The CIA did take an active, but brief, interest in UFOs in mid-1952, which continued until early 1953, in response to a White House inquiry. Since that time the CIA has had far more important matters to pursue.

But the CIA is a handy whipping boy and the UFO proponents are fast running out of scapegoats to blame for their inability, after more than a third of a century, to come up with unequivocal evidence to support their claims.

—Philip J. Klass

Philip Klass is chairman of CSICOP's UFO Subcommittee.

A Call for a "Commission of Inquiry" on Psi

Prominent parapsychologist John Beloff has called for a commission of inquiry to attempt to decide whether psi phenomena inexplicable by accepted scientific understanding do or do not exist.

Beloff, a University of Edinburgh psychologist, made his proposal in a paper at the annual convention of the Parapsychological Association in Syracuse in August. He said such a commission would strive once and for all to settle a matter that he acknowledged remains unresolved after more than a century of research.

"Whatever we may have accomplished during our first hundred years," he told fellow parapsychologists, "whatever evidence we may have amassed, whatever literature we may have generated, the fact is that we have not yet surmounted what I can only call the first hurdle, by which I mean convincing our fellow scientists that the phenomena we study are real and not illusory."

He noted that the scientific community can get along without parapsychology, but the reverse is not true.

"The fact that, at latest reckoning,

there are fewer than 300 members and associates of the Parapsychological Association scattered around the globe speaks for itself," he said. "Given the magnitude of our problems, given the fact that we may well be dealing with some of the most unstable and intractable phenomena in nature, we are just too thin on the ground to make the headway that is needed if we are ever to overcome the resistance and incredulity with which our claims are still met.

"We find ourselves caught in a bind. We can expect no support from official science until we have made our case to its satisfaction. Yet, unaided, we cannot make a strong enough case.

"It strikes me as one of the greatest intellectual scandals of our civilization if we cannot, before the twentieth century is out, resolve, once and for all, a question that has been with us for so long and is of such universal interest and importance as the question of whether or not psi phenomena actually exist."

Beloff argued that what is now needed is a "commission of inquiry" to report on the question. It would have to be sponsored by some top-level body "presumably of the American scientific establishment," such as the American Association for the Advancement of Science, the National Science Foundation, the National Academy of Sciences, the Smithsonian Institution, "or whatever." It would need to be government funded "on a fairly generous scale" for at least three years. It would be concerned exclusively with the question of evidence, in Beloff's view, not with theory or problems of interpretation.

The commission would not only examine existing published evidence but subsidize further research "by the authors of such evidence" in order to "clinch the authentication of the findings." This should, Beloff said, "break the existing stalemate where critics can rely on picking holes in the evidence we present confident that no adequate follow-up will dispose of their criticisms." He said he felt there was "good evidence around if only we had more opportunity to amplify it until the implications were overwhelming."

The commission would end its deliberations by giving its opinion about whether "there exist phenomena of the sort we call psi that are inexplicable in principle on the basis of accepted scientific knowledge."

"The problem, as I see it," said Beloff in concluding, "is to get the authorities to sponsor such a commission. And yet, barring some very unexpected upturn in our fortunes in the years ahead, I cannot see that anything short of this will suffice to break the credibility barrier, rescue us from our present stagnant isolation and launch us into our second century of psychical research."

—*K.F.*

Fate Alters Review of Anti-UFO Book

A review of a book that skeptically examines UFO claims and the UFO movement was altered by the editors of *Fate* magazine so that its published version was more critical of the book than the author intended. All the changes were made without the knowledge or permission of the reviewer.

The incident involves a review by Ronald D. Story of *The UFO Verdict* by Robert Sheaffer appearing in the October 1981 issue of *Fate*. As published, the review is, on balance, fairly critical of the book. But Story says favorable comments about the

book, including some he considers quite important, were edited out, and in one case entirely rewritten.

One substantial change was the deletion of this passage, which was the fourth paragraph of the review as Story wrote it:

> On the plus side, I must commend Sheaffer for marshalling a very strong case against UFOs as spacecraft from other worlds or as having any of the other more exotic origins that have been claimed by the UFO theorists addressed in Chapter 20, on UFO theories. The central problem of serious UFO research—the generally poor quality of the data—is well demonstrated, and Sheaffer shows conclusively, in my opinion, that the most common activities of those who call themselves Ufologists, as they are generally practiced today, *cannot* in any legitimate sense be termed a "science."

Story terms this deletion "a particularly significant omission."

"I gave Sheaffer much more credit than appears in the published version of my review, which was drastically edited without my knowledge," Story says. "I was particularly shocked to find my own final statement omitted in its entirety, and a completely different statement, which I did not write, substituted in its place!"

The final two paragraphs of the review, as Story wrote it, stated:

> However, despite these criticisms, *The UFO Verdict* should be welcomed as an important contribution to the existing UFO literature, primarily for reasons of *balance*.
>
> Ironically, the investigation activities of Klass, Oberg, and Sheaffer are among the very few that offer any hope at all of *ever* christening the field of Ufology as a "science."

Those two paragraphs were deleted by the editors of *Fate*. Story calls that "the most important omission." In its place in the published version was simply this sentence:

> But whatever its faults, as a clear statement of the debunkers' position, *The UFO Verdict* is an important contribution.

"That was not my statement," says Story.

Story also points to other places where "important statements [were] left out." One was a reference to the "controversial status" of the UFO field as a "science." Another refers to Sheaffer's book as "hard-hitting." Another was a statement averring that Sheaffer had demonstrated "in spades" that for most UFO believers UFOs constitute an article of faith.

Story is the author of two books critical of Erich von Däniken's theories, editor of a UFO encyclopedia, and author of a recently published book that examines top UFO cases. He says he has become more critical of UFO claims since those books appeared. He characterizes his current position on the UFO controversy as that of a "liberal skeptic" rather than a "cautious proponent." "I am all but totally convinced that the UFO phenomenon is essentially psychological and sociological," he says.

"The distorted version of my book review for *Fate* came as a complete surprise," says Story, who brought the incident to the attention of the SKEPTICAL INQUIRER. "This sort of thing is a 'pet peeve' of mine. I hope that you can do something to help set the record straight."

—Kendrick Frazier

Note: Jerome Clark, *Fate* associate editor, has since written to Story to

defend his editing. He said his editing was "routine" and contended he did not change Story's meaning. The final paragraph was eliminated, he said, "because it did not follow in any clear manner from anything that had gone before."

—*K.F.*

UFO Abductions: Why Not Call the FBI?

J. Allen Hynek, director of the Center for UFO Studies, is angered by the charge of UFO skeptics that more than a third of a century of investigations into tens of thousands of UFO reports has failed to produce any hard evidence to support the claims of UFO proponents. Writing in the May-June 1981 *Frontiers of Science* magazine, Hynek claims "we *do* have large amounts of such evidence," but he admits "it has never been documented to the satisfaction of the scientific community." Hynek goes on to explain the reason: lack of funds.

In August 1979, an organization was created to raise money "to make grants for UFO research and public education," according to the charter of the Fund for UFO Research (FUFOR). The organization is headed by Bruce S. Maccabee, a physicist employed near Washington, D.C., by the Navy. During the two years that FUFOR has been in existence, it has raised more than $12,000 and has awarded several grants. The first was to publish a paper written by Maccabee, the Fund's chairman. Another grant went to help support a Freedom of Information Act suit against the Central Intelligence Agency. Still another grant for $500 was given to a European UFO publication, and Maccabee journeyed to London to present the award at a UFO conference.

Although Hynek is familiar with FUFOR and appeared at a press conference in Washington sponsored by the Fund, and Maccabee is a member of the scientific board of advisors of Hynek's own CUFOS, neither Hynek nor CUFOS has ever made an application for a grant from FUFOR!

In the *Frontiers of Science* article Hynek also complains that none of what he calls "near hard data" UFO cases "has ever had the benefit of an 'FBI-type' investigation, in which a crime lab, operatives, and travel were available to follow through a given case. I have often speculated that if a UFO sighting had been an integral part of a presidential assassination, a Brinks robbery . . . a kidnapping of a prominent socialite, then no cost would have been spared to get the 'hard data' necessary."

Hynek seemingly is unaware that kidnapping—whether the victim is a prominent socialite or someone of more modest background—is a federal crime that gives the FBI jurisdiction if the victim is missing for more than 24 hours or if there is other reason to suspect the victim has crossed state boundaries. There now are approximately 200 cases in which persons claim to have been abducted by the creatures that allegedly fly UFOs, and some claim to have been taken to distant worlds. My check with FBI Headquarters brought a response from a spokesman that he could find no record of any "UFO abductee" having filed a report with the agency or having sought its intervention.

Travis Walton, the young woodcutter who claimed to have been abducted by a UFO in early November 1975, was missing for five days while local law enforcement officers searched for him. Although this was adequate basis for seeking FBI intervention if the law enforcement officers really thought

he had been abducted, none of them called in the FBI.

Hynek has publicly endorsed the Walton case on several occasions and has indicated his confidence that the incident was not a hoax. In view of his statement that he is anxious to obtain an "FBI-type investigation," it is not too late for Hynek, in an *amicus curiae* role, to ask the FBI to investigate the Walton case, and possibly others.

But Hynek—and Walton—should be aware that the U.S. Criminal Code, Title 18, Section 1000.1, provides a penalty of $10,000, five years imprisonment, or both, for anyone making a spurious kidnapping report to the FBI. The phone number of FBI Headquarters in Washington is (202) 324-3000.

—*Philip J. Klass*

Levity in "Levitation," Money in Meditation

As we mentioned in the Fall issue, the Australian Skeptics, a newly formed section of CSICOP, has been investigating claims of Transcendental Meditation officials that they are able to teach levitation—for a fee. "I know it must sound incredible to people," said TM teacher Colin Barnes, according to one news account. "But it happens. I fly twice a day. I flew this morning and it was really good. It is always good."

Last year Australia's top TM'er Byron Rigby, vice chancellor of TM's Australian University, said on the Australian Broadcasting Company "Science Show" that he personally levitated twice daily in the form of hops lasting a quarter of a second. He also stated that "we open ourselves to every kind of investigation."

The Australian Skeptics took him up on his offer. In a letter to Rigby they said: "To examine your ability to control paranormally the force of gravity through exercise of levitation, we would anticipate using various scientific measurement tools which could include video-tape machines to record the phenomena, laser equipment to measure displacement, and sensitive weighing machines to measure the force of gravity."

As reported in the group's latest newsletter, *The Skeptic* (no. 2), Rigby then wrote back a disavowal of the statement. " 'Levitation,' as you call it, is not the central issue in the TM Sidhi program, nor is it a claim made in the teaching of the TM Sidhi procedures... Not one of the statements or claims you attribute to me is true."

The group rechecked the tape of the ABC "Science Show" and wrote again to Rigby: "Our committee is

astonished that you now disavow the claims you made in your public radio interview that you personally levitated twice per day . . . Our Committee now asks you to publicly retract your organization's claims to levitate."

No reply was immediately forthcoming.

* * * * *

The Skeptic also reports the story of five former TM participants who paid more than $60,000 for Sidhi courses.

One of them, Linda Pearce, had this to say: "It was nonsense. We were all completely taken in. He only taught people to hop around like frogs. No one ever learnt to fly.

"You get into a room with springy rubber mats, then you meditate in the squatting position. Then you chant at one another and bounce up and down on the mats.

"With practice you can get several feet off the ground but there is no way you can describe it as flying."

Another former TM'er said: "I've watched hundreds of so-called flying experts, but not one could hover in the air, even for a split second. All they do is bounce and scream with contorted faces in a kind of religious fervor."

* * * * *

Levitate or not, it is clear that the TM movement's financial status in Australia has been soaring. A member of the Australian Skeptics in Sydney checked the Corporate Affairs records of the parent body of the TM organization in that country, the World Plan Executive Council. The balance sheets show there is plenty of money to be made in meditation. The company was incorporated on July 1, 1976, and started out with $33,786 in funds from the International Meditation Society. In the first 15 months, their income amounted to $855,430. More than half of it was from instruction.

Accumulated funds increased from $42,427 in September 1977 to $345,673 by September 1979. Fixed assets rose from $25,390 to $203,108. Current assets rose from $166,613 to $393,476.

In their first 15 months of operation, they sent $172,760 to their administrative center in Switzerland. In the following 12 months they sent an additional $415,200, making a total of $587,960. They have also purchased a dairy farm near Agnes Falls, Australia, for $170,395. Australian Skeptics has asked for an accounting of the purpose to which the money sent to Switzerland is put.

They note that the World Plan Executive Council has been granted tax-exempt status by the Australian government.

—*K.F.*

Mexican CSICOP Section Initiates Newsletter

The Mexican section of CSICOP has published the first issue of its newsletter *El Investigado Esceptico.* An editorial laments the hold pseudoscientific disciplines, ancient and modern, have on many people, a problem made more difficult by the complexity and inaccessibility of many of the marvelous discoveries of science. It invites readers to assist in overcoming public misperceptions and ignorance about science and pseudoscience.

The newsletter includes articles on homeopathy, zonotherapy (curative finger-pressing techniques), the televising of a weekly horoscope show on the official government cultural TV

channel, astrology as business, the brainwashing activities of the Hare Krishna sect in Mexico, and health-food rackets. There are also book reviews, including one of the Mexican edition of Velikovsky's *Worlds in Collision* that explains his "outlandish and anti-scientific" claims to the unwary Mexican reader.

—*K.F.*

Science, Bogus and Real: Discovering the Distinctions

It is not our role to tout any one of the new science magazines over any other. We rejoice at all the new entries in the science field joining the time-tested providers of reliable information such as *Scientific American* and *Science News*. We feel the public is better served by abundant and diverse sources of science information.

Yet several of the new magazines at times seem willing to exploit public credulity about fringe-science in much the way pro-paranormal publications do. *Discover*, Time, Inc.'s new magazine, is not one of them.

Discover has made a special effort to succinctly critique pseudoscience claims. Now *Discover* is discussing the harm and easy appeal of pseudoscience in its ads, such as this recent one in the *New York Times*. (See box below.) It is the first time we can remember that a mass-market magazine based an ad on the need to distinguish pseudoscience from real science, and it is refreshing indeed.

—*K.F.*

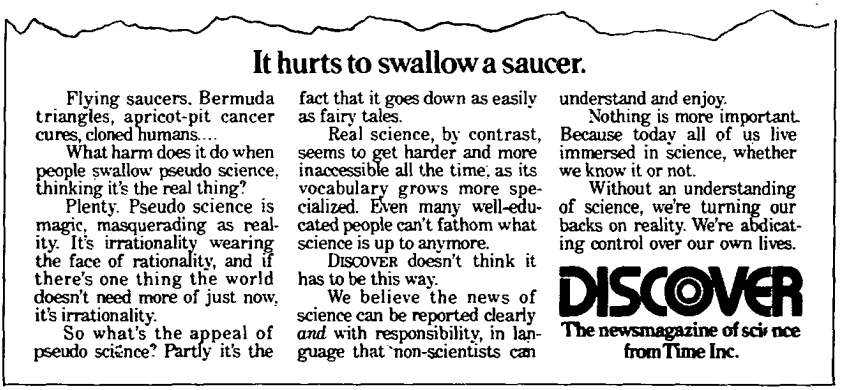
Psychic-Program Profits

In case anyone may have doubted that psychic-training seminars and self-awareness programs are big business, listen to what *Entrepreneur* magazine has to say about the subject.

Under the headline "Psychic-Training Seminars," this publication for financial go-getters says:

> Many of these seminar programs are phenomenally profitable for the operators. For example:
>
> • Silva Mind Control of Laredo, Texas, grosses about $15 million a year.
>
> • Mind Probe Inc. of Los Angeles takes in over $15,000 on each lecture it holds each month.
>
> • EST of San Francisco takes in over a quarter-million dollars per month. We attended a lecture series recently in which over 100 people paid $350 each to attend—a box office of $35,000.

Not only is the money big, says *Entrepreneur*, the knowledge required



It hurts to swallow a saucer.

Flying saucers. Bermuda triangles, apricot-pit cancer cures, cloned humans....

What harm does it do when people swallow pseudo science, thinking it's the real thing?

Plenty. Pseudo science is magic, masquerading as reality. It's irrationality wearing the face of rationality, and if there's one thing the world doesn't need more of just now, it's irrationality.

So what's the appeal of pseudo science? Partly it's the fact that it goes down as easily as fairy tales.

Real science, by contrast, seems to get harder and more inaccessible all the time, as its vocabulary grows more specialized. Even many well-educated people can't fathom what science is up to anymore.

DISCOVER doesn't think it has to be this way.

We believe the news of science can be reported clearly *and* with responsibility, in language that non-scientists can understand and enjoy.

Nothing is more important. Because today all of us live immersed in science, whether we know it or not.

Without an understanding of science, we're turning our backs on reality. We're abdicating control over our own lives.

DISCOVER

The newsmagazine of science from Time Inc.

The text of *Discover's* anti-pseudoscience ad.

is minimal: "Best of all, you don't have to know anything about the subject matter to enter this fascinating business. People from all walks of life are producing huge profits from a tiny initial investment."

The magazine urges people to hop on the psychic and self-awareness program bandwagon because it's headed toward the bank.

"All the operations we investigated are enjoying tremendous success. It takes only about $2,000 to get started, and you don't have to be a psychic to see the tremendous profit potential here."

Lest the would-be entrepreneurs not have the necessary psychic foresight to plan such an operation on their own, the magazine is hawking its own guide, "Manual #46 Psychic-Training Seminars," to tell all. Cost? $45.

—*K.F.*

Gumdale UFO Sighting: It's all hot air

Police earlier this year went to the town of Gumdale, Australia, near Brisbane, to investigate a report that a "flying saucer" had terrified a young girl. Twenty other Gumdale residents supported the sighting. The Brisbane Airport said nothing unusual had shown up on radar.

The Royal Australian Air Force at Amberley Air Base was alerted. It sent out a flight of four F-111's on a patrol at dusk. Nothing was found.

Constable Steve Foster of the Cleveland, Australia, police later identified the source of the reports. It turns out that two youngsters in the area had each been sent a model hot-air balloon by a relative in England. The balloons were about 1.5 meters high and had strips of red, silver, gold, and blue metallic film that reflected light.

On a trial flight near Gumdale an anchoring string broke, and a spirit burner whisked one of the balloons into the air.

As a report in the *Sydney Daily Mirror* (April 13, 1981) concluded: "Lights at dusk and people's imagination did the rest."

—*K.F.*

In Brief

Twelve-year-old Jeana Rodriguez returned home to her San Jose, California, family on August 4, 1981, after being held captive by a kidnapper for five months. A short time earlier, a psychic had declared that Jeana was dead.

Jeana told her ecstatic family that she had been kept in a pit for part of the time but had eventually duped her captor into turning her loose. Then she walked home.

Jeana's mother, Barbara Rodriguez, said that even though the psychic had told her that Jeana was dead she had never given up hope that her daughter was still alive. Said Mrs. Rodriguez: "I'll never go to a psychic again."

—*K.F.*

Psychic Vibrations

Astrologer Laurie Brady ("who predicted the attempted assassinations of President Reagan and Pope John Paul II, the Tony nomination and illness of Elizabeth Taylor, the Israel-Iraq confrontation and treacherous floods in America's Midwest") predicted in *The Star* that "September 12, 1981, will go down in history as the day the Russians take a spectacular step forward in space and contact beings in another galaxy." When the score of her "predictions" is next published it's safe to assume that that one won't be among them.

* * * * *

Parapsychologist D. Scott Rogo explained an extremely important concept in a recent issue of *Fate* magazine. According to Rogo, "Parapsychologists realized long ago that most poltergeist cases are neither completely genuine nor completely phony. They are usually a mixture of both. The majority of cases begin as genuine and end up partially or entirely fraudulent. Poltergeists usually focus on children who all too often start faking events when the real poltergeist activity begins to ebb." This is most perplexing. Of course it could be that, as the "manifestations" continue, scrutiny increases and the technique being used is at last discovered. On the other hand, Rogo may be right and, if so, it is a pity to have the reputations of honest ghosts ruined by all that subsequent trickery. But there's just one thing that puzzles us: How is it that poltergeists nearly always manage to select households that have children inclined toward faking the supernatural?

* * * * *

A British clergyman may have finally stumbled upon a way of reducing the high accident rate on the highways: exorcism. One of England's best-known exorcists, Donald Omand, told the *National Enquirer:* "I have exorcised roads all over the world, and evidence shows that many of them have remained accident free." Omand performs exorcisms on what he calls "black spots" on highways, where motorists reportedly lose control of their vehicles for no apparent reason. One spot on a stretch of road in Australia had been the scene of six accidents. But since the evil spirits were banished, there hasn't been a single accident. One stretch of road in England had had eight accidents in just three years, but after Omand's exorcism it was accident free for six years. However, one serious accident did eventually occur there. The ceremony was repeated (some spirits are tougher to deal with than others), and since then the road has once again been safe.

* * * * *

At long last, somebody is finally putting the awesome power of Pyramid Energy to good use. UPI reports that a sect in Utah, called the Summum Fanum Pyramid, is now marketing a wine fermented and aged in pyramids. Members of the group are said to take turns meditating in pyramids near the wine in the belief that such concentration imparts "conceptual information" to the wine. The recipe for the brew is said to have been derived from the Egyptian Book of the Dead.

* * * * *

A safe and effective new means of birth control has just been discovered. It involves the "lunar fertility cycle" discovered by Art Rosenblum of the Aquarian Research Center in Philadelphia, and it is determined by the moon's position at the time of a woman's birth. Rosenblum explained to the *National Examiner* that a woman may release eggs into her womb during her time of "lunar fertility," even if this doesn't coincide with the normal biological pattern. Thus, if a woman was born under a full moon, she is said to be at her peak fertility 24 hours before this phase each month. Two studies are said to have confirmed that the method is almost 98 percent effective. However, Rosenblum cautions that women should "also use traditional methods to be safe" until all the proof is in.

* * * * *

The *National Enquirer* reports that "vampires from space" have caused a UFO "reign of terror" in the Amazon coastal region of Brazil, paralyzing their victims with blinding light, then sucking out their blood. Many people claim to be weak from blood lost to these celestial vampires, and animals have reportedly been killed, totally drained of blood. Brazilian UFO expert Antonio

Jorge Thor says that these "vampire" UFOs serve as a warning that not all extraterrestrials "have peaceful intentions."

* * * * *

The *San Jose Mercury* reports that California Governor Jerry Brown has won state funding for acupuncture treatment for the poor. No mention is made of any provision to pay for visits to psychic healers.

* * * * *

Some predictions from a few well-known "psychics" you may have forgotten:

Ruth Montgomery, the widely published author who gets her predictions through "automatic writing," predicted in August 1980 that the next

president of the United States would be Robert Byrd.

Irene Hughes predicted in February 1981 that before the end of the year the United States would launch a satellite that will somehow supply so much energy it will "solve the oil crisis."

Gloria James of Massachusetts, who "predicted" the death of John Lennon, says that before the end of 1981 a one-world religion will unite all the world's churches.

Kay Rhea, a California soothsayer much adored by the media, pronounced in April 1981 that young Jeana Rodriguez, missing since February, had been abducted by a Mexican man and was now dead. In August, Jeana returned safely to her family and police arrested a man with an Anglo-Saxon name.

Maria Graciette actually scored a hit for 1981: "Prince Charles of England finally announces his engagement. His wedding to a beautiful socialite will take place before the end of the year." But she also saw the United States moving to socialize medicine in 1981 and predicted a number of other marriages that have not yet taken place.

—Robert Sheaffer

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On Coincidences

The probability of "coincidences" happening is greater than we think. Psychological self-selection tends to impart greater significance to them than is justified.

Ruma Falk

> Flammarion recalls (in *The Unknown*) that when he was writing a chapter on the force of the wind for his *L'Atmosphere*, a gust of wind carried his papers off "in a miniature whirlwind beyond hope of recovery." A few days later, he received the proof of that chapter from his publisher, complete with the missing pages. They had been deposited in a street frequented by the publisher's porter, who often carried Flammarion's material, and who gathered them up under the impression that he must have dropped them.
>
> From the chapter "Coincidences" in *Phenomena: A Book of Wonders* (1977) by Michell and Rickard (p. 90)

We are all intrigued by coincidences. Extraordinary coincidences that were perceived as miracles have attracted people's attention since early days. It is easy to get people to talk about this subject because everyone has some incredible anecdotes stored away. Coincidences puzzle us in daily life as well as in various fields of scholarship and thought. Thus, the quotation: "A coincidence? Perhaps. Still, one can't help wondering . . ." might have been drawn out of a criminal novel, a legal debate, or a gossipy chat. Actually, it is extracted from a scientific article entitled "Emotional Stress and Sudden Death" by G. Engel in *Psychology Today* (November 1977, p. 114).

The subject finds lyric and symbolic expression in literature. Coinci-

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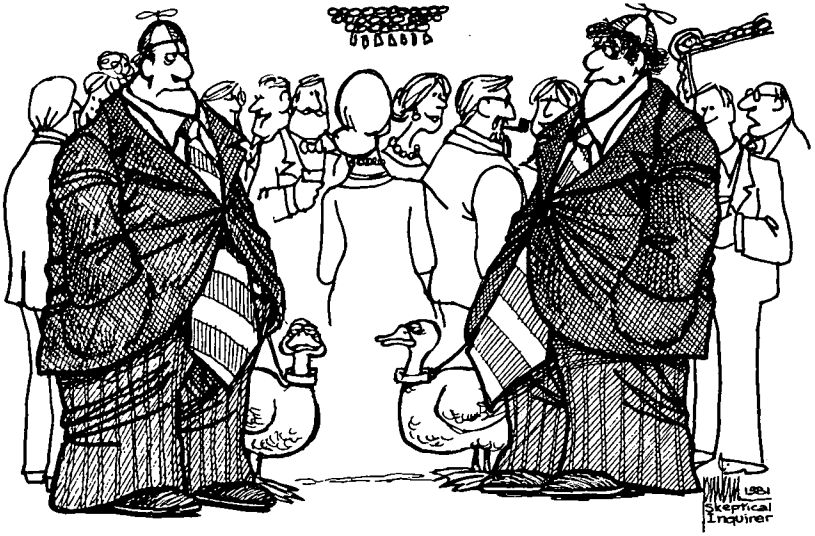

dences play a key role in the plots of some Greek tragedies. Incredible coincidences sometimes assume a special emotional significance also in contemporary literature. Thus, for example, much of the power and the startle of Boris Pasternak's *Doctor Zhivago* (1958) derives from the tragedy of fate that coincidentally brought the heroes together at the most crucial moments of their lives.

A Unique Event or One Case Out of Many?

Nathan Shaham tries explicitly to impress his readers in his book *Aller Retour* (1972, in Hebrew). He tells about two Israeli friends who had not seen each other for a long time and did not know of each other's whereabouts who one day coincidentally sat in adjacent seats in a London cinema:

> He repeated again and again: "What a remarkable coincidence!" and for a long time after that, he was still dwelling on an analogy that occurred to him. The chance that two people, who have not arranged a meeting and who live far away from each other, would meet at exactly the same time in neighboring seats in a movie theater is smaller than the chance of a domesticated monkey to type the British anthem on a typewriter.

However, when a similar accidental meeting occurred again, he wrote:

> His hair stood on end when he saw them, following the usher, heading toward the two empty seats next to his. If they are seated here, he told himself, it would be such an amazing occurrence from the statistical point of view that it could excite even a cold-blooded computer, since that legendary

> monkey . . . could have typed out an entire Shakespeare play before such an occurrence would have happened twice in succession.

Strange coincidences always seem less surprising when they happen to others. My critical faculties were aroused reading Shaham's story. Somehow, I did not wish him to be the one selected by "divine forces." I remembered, though, incredible events that had happened to me. My attempts to understand the secret of their surprise led to the following analysis: It is conceivable that the element of surprise in such a small-world meeting stems from the fact that we attend to all the detailed components of the event as it actually occurred. The probability that an event would happen *precisely that way* is indeed minute.

When I happened to meet, while in New York, my old friend Dan from Jerusalem, on New Year's Eve and precisely at the intersection where I was staying, the amazement was overwhelming. The first question we asked each other was: "What is the probability that this would happen?" However, we did not stop to analyze what we meant by "this." What precisely was the event the probability of which we wished to ascertain?

I might have asked about the probability, while spending a whole year in New York, of meeting, at any time, in any part of the city, anyone from my large circle of friends and acquaintances. The probability of this event, the *union* of a large number of elementary events, is undoubtedly large. But instead, I tended to think of the *intersection* of all the components that converged in that meeting (the specific friend involved, the specified location, the precise time, etc.) and ended up with an event of minuscule probability. I would probably be just as surprised had some other combination of components from that large union taken place. The number of such combinations is immeasurably large; therefore, the probability that at least one of them will actually occur is close to certainty. Shaham's hero did not ask himself in advance whether he would encounter that very friend as his immediate neighbor on that particular visit to the cinema. On the contrary, he had nearly forgotten about that friend. Everybody has an enormous number of that sort of "good friend." Furthermore, there are plenty of occasions on which we are on the streets, at a movie, or in other public places. Is it really surprising that at least on some of those occasions we should meet some acquaintance?

Analysis of Surprises

How do people who hear stories about strange coincidences interpret these stories? Are they impressed by the intersection of all the factors that combined in the incident, or do they implicitly take into account that they are considering one out of a large set of events that could possibly have taken place? A questionnaire containing four sections was devised to try to answer this question.

Four stories described different coincidences (an unexpected meeting, a fortunate hitchhike, a convergence of birthdays, and a peculiar numerical combination). Each was based on a true story and each appeared in four versions. Seventy-nine adult subjects (in Israel) rated each story according to the perceived likelihood of the described event.

The past intersection (PI) version described the event as it happened in the *past*, emphasizing the *intersection* of all the amazing details. In one of the stories, for example, a soldier I had recently met told me that the previous day, her nineteenth birthday, she tried to hitchhike from the outskirts of Jerusalem. The first driver who stopped was going precisely to her destination, a little-known settlement in the Western Negev, Mivtahim, where she worked as a teacher.

The past union (PU) version told the same story, again in *past* tense. However, it also gave the reader several hints about the *union*, that is, about the universe of possibilities of which this story represented just one. In the hitchhiking story, for example, the soldier mentioned that she often hitchhiked and that the day before had been her first lucky day in the year. The story also mentioned that Mivtahim is situated on a major highway, suggesting to the reader that many people might have been driving on that road to places farther away and could have offered her a ride to her destination.

In the future union (FU) version, the same *union* of events was described but the question of likelihood referred to a *future* event. The soldier is about to start serving as a teacher. She wants to know her chances of receiving a ride directly to Mivtahim (which lies on a major highway) sometime during the year.

The future intersection (FI) version asked about a *future* event, but the question was very specific and concerned the *intersection* of all the above-mentioned factors. This soldier now wants to know what the chances are that precisely on her nineteenth birthday she will, on her first attempt, get a ride from Jerusalem directly to Mivtahim, the settlement where she works.

The other three stories were similarly improbable when one considered the intersection of all the components but very probable when the question related to the union of all the alluded possibilities. The questionnaire, given to each subject, included the four different stories, each in a different version (PI, PU, FI, and FU).

Since the temporal setting of an event should make no difference in its likelihood, and since unions should be more likely than intersections, one could expect both past and future intersection stories to be judged less probable than the two union stories.

Of all versions, FI is the simplest to judge. One asks about a future event, and all the components constituting that event are unambiguously enumerated. The comparison between the responses to version FI and version PI (the usual form of a coincidence) seems crucial. If the subjects

perceive the event in version PI as one of many that could have happened, they may rate version PI as more likely than FI, possibly as high as the union stories PU and FU.

However, it is not inconceivable that the time setting as well as the scope of the event might affect the rating. The knowledge of the fact that an event took place may render it, in hindsight, more credible relative to the same event described hypothetically. Fischhoff (1975) got results to that effect based on subjects' historical judgments. The presentation of coincidences in both tenses may test for the existence of a hindsight effect on the perceived likelihood of such stories. If the temporal setting will affect the judgments to lend more credibility to past events, one should expect *both* intersection and union stories to be perceived more likely in the past than in the future.

This experiment was replicated at Decision Research in Oregon in collaboration with my colleague Don MacGregor. The subjects were 91 adults from Eugene, most of them students at the University of Oregon. Similar stories were presented in the same four versions. Names, places, and other minor details were changed to give the stories an American setting. Subjects rated the stories for surprisingness rather than for likelihood.

The pattern of the results, both from Israel and from Oregon, showed that a past-intersection story was perceived (at least partly) as a union event, and the time factor did *not* affect the judgments. The overall pattern best matched the order depicted schematically in Figure 1; i.e., the past-intersection and past-union stories were judged about equally likely and both were perceived more likely than the future-intersection and less likely than the future-union. In symbols: $P(FI) < P(PI) \approx P(PU) < P(FU)$, where

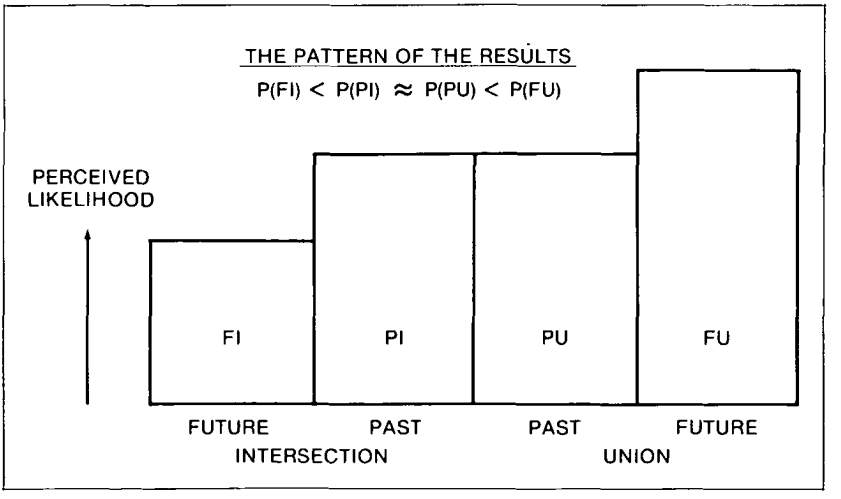

FIGURE 1.

P(version) should be read as: the perceived probability of that version.

The "union" story in the past (PU) was probably not judged as likely as the future union because of the difficulty in describing a union event in the past.[1]

Version FI was evaluated significantly less probable than each of the other three versions and, most important, less probable than version PI. This may answer the initial question of how the usual coincidence story, involving an intersection of events in the past, is perceived. Such a PI story is judged more probable than the hypothetical occurrence of a comparable intersection in the future. This cannot be due merely to the temporal difference between past and future, since a reverse ordering was obtained between the judgments of versions PU and FU.

The most plausible interpretation of the results suggests that, upon hearing a story about a past coincidence, one is aware of a wide range of possibilities and considers the event as one of many that could have happened. One is probably not encoding the story with all its specific details as told, but rather as a more general event "of that kind."

What Strikes People?

The results showed that the additional hints about the other possibilities, in version PU, did not increase the judged probability of PU stories over that of PI (see Figure 1). People do not seem to need those hints. They do not perceive the one event that did happen as more surprising than the occurrence of at least one of a set of events. What, then, is the source of the well-known amazement that nevertheless strikes us when such events occur?

One possible answer would be that we are amazed when a coincidence happens to us personally and are not particularly surprised to hear about such events happening to others. In the course of the Israeli experiment, many of the subjects, who (according to the results) had not viewed version PI stories as particularly surprising, told me spontaneously about incidents that had happened to them. However, these stories did not appear *to me* any more surprising than the four stories drawn from my personal experience that comprised set PI of the experiment.

Our Oregon subjects were specifically asked to write and rate (for surprisingness) a coincidence that had happened to them. These self coincidences were later given, along with our four PI stories, to a new group of 146 subjects to read and rate. The results showed that the subjects who wrote their own stories judged those stories to be more surprising than our PI stories, whereas the new group of subjects found the subject-authored stories less surprising than the PI stories. The self coincidences were also judged to be significantly less surprising to other subjects than they were to their authors.

Subjects reading stories written by others probably perceived the

writer of a coincidence as one of many people and every event as a realization of one of many possibilities. They understood that "strange events permit themselves the luxury of occurring" (Gardner 1957, p. 307); hence the stories did not seem particularly improbable to them. However, when such an event happened to them personally, they found it difficult to perceive it as one of a set. One's uniqueness in one's own eyes makes all the components of an event that happened to oneself seem like a singular combination. It is difficult to perceive one's own adventure as just one element in a sample space of people, meetings, places, and times. The hardest would probably be to perceive oneself as one replaceable element among many others. When I analyzed, above, the story of my meeting Dan, I succeeded in extending that specific friend to many other acquaintances, the particular place to the whole area of New York City, and the time to an entire year. I kept only myself constant throughout all these extensions. Martin Gardner (1972) expressed some of these ideas in a succinct fashion:

> It is easy to understand how anyone personally involved in a remarkable coincidence will believe that occult forces are at work. You can hardly blame the winner of the Irish Sweepstakes for thinking that Providence has smiled on him, even though he knows it is absolutely certain that someone will win. [p. 112]

Maybe the same line of subjective reasoning applies to the other end of the "luck continuum." Perhaps that inability to perceive oneself as one element in a sample space hinders the realistic assessment of certain risks. It may contribute to the prevailing belief that "this can't happen to me," since population statistics do not apply to me (see, also, Snyder 1980; Slovic, Fischhoff, and Lichtenstein 1980).

A Fallacy of Selection

One characteristic of coincidences is that we do not set out to seek them in a predetermined time and place; they simply *happen* to us. Since they stand out in some strange combination, we single them out and observe them under a magnifying glass. A *selection fallacy* is here in action.

When we design an experiment based on a random sample, carry it out, and show the probability of its results to be extremely low under the hypothesis of mere chance (the null hypothesis), we are entitled to reject that hypothesis. Such a statistically significant result is justly viewed as supporting an interpretation other than chance. On the other hand, when we single out an extraordinary coincidence and claim that it is significant, we commit a logical error. Computing the probability that a surprising event of that kind would take place is not permissible, since the design of the experiment was not determined in advance and the sample space was

not clearly outlined. Our "experiment," in the course of which we came across our anecdote, was not preconfined by time, space, or population. It attracted our attention because of its rarity; otherwise we would never have stopped to consider it. Having arrived at it this way, we are not permitted to claim that it is highly unlikely. Instead of starting by drawing a random sample and then testing for the occurrence of a rare event, we select rare events that happened and find ourselves marveling at their nonrandomness. This is like the archer who first shoots an arrow and then draws the target circle around it.

Arthur Koestler devoted several of his books to a detailed description and discussion of coincidences and parapsychological phenomena. His main conclusion (Koestler 1972) was that these phenomena are the result of beyond-causal lawfulness, as yet unexplainable within the framework of accepted physical theory. However, on close examination, one sees that those conclusions were based mostly on anecdotal events, occurrences not obtained in a systematic predesigned study but, rather, contributed by the people involved. In *The Case of the Midwife Toad*, Koestler (1971) tells the life story of the Austrian biologist Kammerer, who was the first to attempt to deal with coincidences "systematically." Kammerer wrote a book in which he described one hundred coincidences—dealing with people, dreams, words, and numbers—that he had collected in the course of twenty years. Some of these stories are indeed bewildering. However, on second thought, it appears that Koestler did not give due weight to the fact that these anecdotes were collected in a process of deliberate selection. Is it so surprising that a scientist who got a reputation as a collector of anecdotes would succeed in accumulating one hundred such stories in the course of twenty years?

In a similar vein, Hintzman, Asher, and Stern (1978) showed that a selection process is also operating on our *memory*. They claim that coincidences *seem* to occur too often to attribute to chance just because of selective remembering of meaningfully related events. Events that do not enter into coincidences are more likely to be forgotten than events that do.

How Small Is Our World?

The Nobel laureate physicist Luis Alvarez (1965) related, in a letter to *Science*, a strange event that had happened to him: A casual phrase in a newspaper triggered a chain of personal associations that reminded him of a long-forgotten figure from his youth. Less than five minutes later, having turned the pages of the paper, he came across an obituary for that same person. Alvarez noted that these two closely spaced recollections of a person forgotten for 30 years, with the second event involving a death notice, follow the classical pattern of many popular parapsychology stories. Such coincidences often make people feel that there must be a causal relation between the two events, as, for example, by thought

transference. However, considering the details of this case, it was obvious that no causal relationship could have existed between the two events.

Alvarez felt that scientists should bring such stories to public attention to show that such apparently improbable coincidences do, in fact, occur by chance. He also endeavored to compute its probability by estimating the number of people that an average person knows and the average frequency with which one remembers one's acquaintances. Using rather conservative assumptions, he arrived at the conclusion that the probability of a coincidental recollection of a known person in a 5-minute period just before learning of that person's death is 3×10^{-5} per year. Given the population of the United States, we could expect 3,000 experiences of the sort to occur every year, or about 10 per day. Considering coincidences of other kinds as well increases this number greatly. "With such a large sample to draw from, it is not surprising that some exceedingly astonishing coincidences are reported in the parapsychological literature as proof of extrasensory perception in one form or another" (Alvarez 1965). Paradoxically, the world is so big that quite a few of these "small-world phenomena" are bound to occur.

Underestimating the total number of surprising possibilities could be one of the roots of our amazement in the face of the realization of one of them. Thus one is universally astonished to learn that the probability of at least 2 out of 23 randomly selected people having the same birthday is a little over 1/2. This may be due to our limited ability to appreciate the number of pairs one could form out of 23 objects.

In *Chariots of the Gods?* (1969), Erich von Däniken showers his readers with coincidences designed to convince them of the validity of his theory that ancient intelligent creatures visited earth long ago. For example:

> Is it really a coincidence that the height of the pyramid of Cheops multiplied by a thousand million ... corresponds approximately to the distance between the earth and sun? ... Is it a coincidence that the area of the base of the pyramid divided by twice its height gives the celebrated figure π=3.14159?* ... one might reasonably ask whether the "gods" did not have their say here, too ... If the facts noted here are not coincidences—and it seems extremely difficult to believe that they are—then the building site was chosen by beings who knew all about the spherical shape of the earth and the distribution of continents and seas. [p. 96]

A weak point in this supposedly scientific proof is the fact that the author had not predicted a priori that the ratio between the base and the height of that specified pyramid would equal 2π. Such a prediction would have made the conclusion unavoidable that the result is not coincidental.

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*Von Däniken's facts and mathematics are wrong. These particular "coincidences" not only lack all meaning but are not even "true." See E. C. Krupp's *In Search of Ancient Astronomies* (Doubleday, 1978), p. 275—*Ed.*

Why was the connection between the height of the pyramid and the distance from the earth to the sun selected for examination? Other magnitudes, or ratios between magnitudes, drawn from any pyramid's dimensions could have matched some mathematical, geographical, or astronomical parameter. The number of possible "surprises" is enormous; this fact reduces the surprising effect of each individual one once it has been discovered.

In an ingenious experiment reported in Hardy, Harvie, and Koestler's *The Challenge of Chance* (1973, pp. 72-109), Harvie showed that one can produce a considerable number of coincidences just by *randomly* combining a *large* number of elements. Harvie performed a random simulation of a large-scale experiment that had been conducted by the authors to test for telepathy. They employed many subjects who had to guess an unseen target stimulus many times. Thus a huge number of responses were collected. Indeed, remarkable results were obtained: The responses of different subjects on the same trial were at times incredibly similar to each other. The rate of such "coincidental thoughts" seemed surprisingly high. Moreover, these matches were qualitatively so astounding (pp. 43-46) that they could have converted even the extreme skeptic. However, Harvie's "mock experiment" showed that a completely random and noncausal rearrangement of the same responses yielded equally surprising outcomes.

Explaining Away Everything

Gardner (1957, pp. 303-05) has described how a selection mechanism often operates in the interpretation of ESP experiments. When a subject fails to guess with great success the target card presented in a sequence of cards, one sometimes finds that his or her guesses significantly match a card which is about to be presented (forward displacement). Sometimes the responses turn out to match the target card of the previous trial (backward displacement). Displacement of the target can eventually extend to two or three steps forward or backward. When the number of hits is particularly low, the researchers claim that this is a manifestation of negative telepathy (avoidance of the target). Considering the union of all the different ways in which ESP can manifest itself, there is little wonder that at least one of them does appear "nonrandomly."

Diaconis (1978) makes a similar point with respect to a series of supposedly extraordinary card tricks demonstrated by a young man called B.D. who was tested in the Psychology Department of Harvard University: "A major key to B.D.'s success was that he did not specify in advance the result to be considered surprising. The odds against a coincidence *of some sort* are dramatically less than those against any prespecified *particular one* of them" (p. 132). Even B.D.'s frequently missed guesses either were considered "close" or were regarded with sympathy rather than doubt and seemed only to confirm the reality of his unusual powers. This

ability to explain whatever comes up is described by Fischhoff (1980) in terms of capitalization on chance: "The data are fixed and undeniable, while the set of possible explanations is relatively unbounded; one hunts until one finds an explanation that fits" (p. 23).

The selection fallacy can operate unconsciously even on a very conscientious investigator (Gardner 1957). Suppose 100 investigators decide to test for telepathy, each one using a single subject. Fifty of them are going to obtain, quite by chance, above-average results. They will go on and run a second experiment, whereas the other fifty will drop the research. In the next stage, we can expect another half of the investigators to drop out, and so forth in the following stages. Finally, we are left with one investigator whose subject achieved particularly high scores in six or seven successive sessions. "Neither experimenter nor subject is aware of the other ninety-nine projects, and so both have a strong delusion that ESP is operating. The odds are, in fact, much against the run. But in the total (and unknown) context, the run is quite probable" (p. 303). The reasonable question to ask at this point is whether the result will not be disconfirmed if the experimenter continued testing that subject. Sure enough, the phenomenon does tend to recede. Now the investigator will resort to those post hoc explanations like fatigue and the "typical decrease" in experiments of that kind, which is, of course, also the typical decrease in random sequences, better known as "regression to the mean." The main lesson to be learned from awareness of these pitfalls is that one should subject the nonrandom finding to a retest.

Miracles Do Not Recur

The very essence of a scientific rule is a claim that certain relationships are replicable. A coincidence, however, is not expected to recur in repeated trials.

A (statistically) significant result is an outcome obtained through a predesigned experiment with a random sample. The probability of such a result (or a more extreme one) being obtained at random is so small that we dare claim it is improbable that it occurred only by chance. Therefore, we can expect it to reappear under a similar design. A significant result is not a miracle; it is believed to be replicable (Brown 1957). When we pray for a miracle, we are hoping for a rare event that we cannot expect to repeat itself consistently. Those who are drowning in the ocean and yearn for a miracle to save them are aware of the small probability that a helicopter or a boat will materialize at the right moment. The point of resemblance between coincidences and significant statistical results is the low probability of the event in question. However, valid scientific results recur in a reproduction of the conditions, whereas coincidences do not. The probability of obtaining a significant result is very small *under the chance hypothesis*; but when we obtain one, we *reject* the chance hypothesis and

replace it with another hypothesis. The validity of that alternative hypothesis guarantees the replication of the result under similar circumstances.

A Matter of Perception

Our perception of randomness is afflicted by typical fallacies and distortions (Falk 1975). The main bias in this intuitive perception is known as the "gambler's fallacy." When a tossed coin turns up with "heads" several times in succession, gamblers bet a huge sum on "tails," believing that, since the two faces are equiprobable, it is time for balance to be restored. The idea that the probability of tails at this point is higher is incompatible with the concept of sequential independence. While it is true that the probability of heads appearing n times in succession is very small a priori when n is large, the conditional probability of heads, following $n-1$ continuous heads, is still 1/2. This is because, unlike the gambler, the coin has neither memory nor conscience.

That fallacy often assumes another form when we observe a random cluster of identical events—like accidents or misfortunes—and conclude that such a run could not be the result of chance. We reject the hypothesis of randomness in light of a sequence of identical outcomes (a "run") and replace it by some "causal" mechanism (like the devil's interference). Some people start believing that "when it rains, it pours," as did the king in Shakespeare's *Hamlet*:

> When sorrows come, they come not single spies,
> but in battalions!
>
> [Act IV, Scene V]

It seems that we expect random events always to appear in their appropriate proportions even in short subsequences (Kahneman and Tversky 1972). The random runs we encounter often evoke suspicion of violation of randomness. Koestler's (1972) theory of coincidences attempts to generalize the "supernatural lawfulness" of the world of ESP to coincidences. If we inspect the nature of the coincidences described, we find that—much like the gambler who is surveying the sequence of outcomes—Koestler's attention is drawn to runs or clusters that appear nonrandom.

Likewise, a detailed study of the concepts employed by other researchers of coincidences reveals that a run or a co-occurrence of similar elements is often referred to. Such is the case with Kammerer's "recurrence" or "clustering" of events in time or in space, as well as with the term "synchronicity," coined by the psychologist Jung (with the physicist Pauli). Koestler (1972) clarifies his view on the extra-physical lawfulness of coincidences using the following description: "We thus arrive at the image

of a world-mosaic or cosmic kaleidoscope, which in spite of constant shufflings and rearrangements also takes care of bringing like and like together" (p. 86). He imagined a prolonged process of random mixing and decided that the clusters he observed (i.e., the coincidences) could not be random. Ideal randomization should, in his opinion, completely separate similar elements. If they nevertheless appear in clusters, one must come up with a theory to explain such an odd occurrence—one cannot help but be reminded of the gambler's fallacy.

In conclusion, I have pointed out the possibility that cognitive biases—such as consideration of a too narrow event (especially with reference to oneself), a selection mechanism, and the gambler's fallacy—may be the source of erroneous supernatural theories; yet it was not proved. One can't completely rule out the possibility that the phenomena in question really are controlled by their own set of laws. One cannot but agree here with Koestler:

> Whether one believes that some highly improbable meaningful coincidences are manifestations of some such unknown principle operating beyond physical causality, or are produced by that immortal monkey at the typewriter, is ultimately a matter of inclination and temperament. [Hardy, Harvie and Koestler, 1973, p. 230]

References

Alvarez, L. W. 1965. "A Pseudo Experience in Parapsychology" (letter). *Science* 148: 1541.

Brown, G. S. 1957. *Probability and Scientific Interference*. London: Longmans Green.

Diaconis, P. 1978. "Statistical Problems in ESP Research." *Science* 201: 131-136.

Falk, R. 1975. *The Perception of Randomness*. Doctoral dissertation (in Hebrew). The Hebrew University of Jerusalem.

Fischoff, B. 1975. "Hindsight ≠ Foresight: The Effect of Outcome Knowledge on Judgment Under Uncertainty." *Journal of Experimental Psychology: Human Perception and Performance* 1:288-299.

_____. 1980. "For Those Condemned to Study the Past: Reflections on Historical Judgment." In R. A. Shweder and D. W. Fiske, eds., *New Directions for Methodology of Behavior Science: Fallible Judgment in Behavioral Research*. San Francisco: Jossey-Bass.

Gardner, M. 1957. *Fads and Fallacies in the Name of Science*. New York: Dover.

_____. 1972. ("Mathematical Games" column) "Why the Long Arm of Coincidence Is Usually Not as Long as It Seems." *Scientific American* 227 (4): 110-112B.

Hardy, A., R. Harvie, and A. Koestler. 1973. *The Challenge of Chance*. New York: Random House.

Hintzman, D. L., S. J. Asher, and L. D. Stern. 1978. "Incidental Retrieval and Memory for Coincidences." In M. M. Grunberg, P. E. Morris, and R. N. Sykes, eds., *Practical Aspects of Memory*. London: Academic Press.

Kahneman, D., and A. Tversky. 1972. "Subjective Probability: A Judgment of Representativeness." *Cognitive Psychology* 3: 430-454.
Koestler, A. 1971. *The Case of the Midwife Toad.* New York: Random House.
_____. 1972. *The Roots of Coincidence.* London: Hutchinson.
Slovic, P., B. Fischhoff, and S. Lichtenstein (in press). "Informing the Public about the Risks of Ionizing Radiation." In *Proceedings of the Public Meeting on a Proposed Federal Radiation Agenda.* Bethesda: National Institutes of Health.
Snyder, C. R. 1980. "The Uniqueness Mystique." *Psychology Today* 13: 86-90.

Notes

Parts of this paper were included in one section of the author's Ph.D. thesis (carried out under the supervision of Amos Tversky): *The Perception of Randomness* (in Hebrew), the Hebrew University of Jerusalem, 1975. Parts were also included in a Hebrew paper: Falk, R. 1978. "On Miracles and Coincidences." *Mada*, 22: 130-134. I wish to thank Raphael Falk, for editorial comments and contributions to all the drafts of this paper. I am also grateful to my friends at Decision Research: Baruch Fischhoff, Don MacGregor, Sarah Lichtenstein, Paul Slovic, Peggy Roecker, Maya Bar-Hillel, and others for their helpful comments.

1. The stories of version PU did not claim that "at least one" of a set of events did happen: rather, they told about one specific event that had occurred and casually mentioned the other possibilities. Possibly those hints are not sufficiently suggestive of the union sets (see the example of version PU given above). In contrast to that, version FU asked unequivocally about the probability of at least one event out of many. ●

Croiset and Professor Tenhaeff: Discrepancies in Claims of Clairvoyance

It appears that Professor Tenhaeff, whose works are the principal source of information on the Dutch clairvoyant, fraudulently reported his results

Piet Hein Hoebens

This is the second of two articles on Hoebens's investigations. The first appeared in our Fall issue.—ED.

According to Professor Wilhelm Heinrich Carl Tenhaeff *(Proceedings* 1960*)*, the majority of the hits scored by "psychic" detectives "appear to be of value solely from the parapsychological angle." They are of no use to the police, but to the experienced psychical researcher they constitute interesting examples of ESP. The psychic is supposed actually to have "seen" particulars relating to a given police case but to have been unable to get his vision into focus. Only post factum can the clairvoyant's impressions be declared hits. This, however, requires the facts to be subjected to a positively procrustean form of "interpretation."

An anecdote cited by American journalist Jack Harrison Pollack is an almost burlesque example of the lengths to which determined believers will go to make the outcome fit the prediction. Pollack is the author of a full-length biography of the Dutch clairvoyant Gerard Croiset, which Tenhaeff helped him with and vouched for. Consulted in a 1950 Arnheim rape case, Croiset "saw" that the rapist had "an abnormally big genital organ." When the police arrested a suspect, they had a good look at his private parts but found them to be standard size. Never mind, says Pollack, "They learned that he was a twenty-year-old cook who occasionally used a big, red basting syringe in the kitchen, which prompted Croiset's image of an abnormally large genital organ."

Both in the police cases and in the experimental "chair" tests, Croiset's typical ESP hit was on a comparable level. Of course the common willingness to believe that a post factum "explanation" reveals what the

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psychic really meant in the first place is at the bottom of the astounding success of hundreds of soothsayers, I Ching experts, tea-leaf readers, and other augurs. Tenhaeff, however, thought that those who make this objection suffer from "Gestalt blindness."

Professor Tenhaeff, who in 1953 was appointed to the first chair of psychical research ever to be established at a regular university (Utrecht), had a virtual monopoly on the study of Croiset. Tenhaeff's books and articles constitute the principal source of information on Croiset, and it may be said that the case for Croiset's clairvoyant abilities stands or falls with the reliability of his learned mentor. (Tenhaeff died on July 9, 1981, while this two-article series was in press. Professor Tenhaeff had received prior notice of the results of my investigations but declined my invitation to offer specific counterarguments.)

Critics

Th. van Roosmalen is not mentioned in Pollack's *Croiset the Clairvoyant* and neither are several other authors who have occasionally cast doubt on the psychic's achievements and their documentation. In the index to Pollack's book, one looks in vain for such names as George Zorab, the parapsychologist who first discovered Croiset and who could have told Pollack some interesting facts about both the psychic and the professor; Spigt, the historian who showed that Tenhaeff's inaugural address in 1953 was based entirely on a spurious source; Filippus Brink, the criminologist who wrote a major work on occult detectives; Pelz, the Hamburg police officer who in 1959 published a scathing report, titled *Herr Croiset, You Are Not Psychic;* and Ph. B. Ottervanger, the Dutch skeptic who in the fifties fired many a well-aimed shot at Tenhaeff and his protege.

Pollack may never have heard of these critics; presumably Tenhaeff did not encourage him to contact them. They might have persuaded the American journalist to correct at least a few of the most outrageous errors in his manuscript and to include some material that, while not flattering to the subject, might have improved the book.

In the same *This Week* article that we find the Eindhoven case (described in Part I of this series), Pollack praises Tenhaeff as "a stickler for complete scientific proof." Similar laudatory phrases are found in the biography. Pollack might have given a different description had he been familiar with van Roosmalen's article in *Algemeen Politieblad.* There, the Utrecht superintendent reports his meeting with Tenhaeff, which was arranged by the judge-commissioner in Utrecht. On that memorable occasion, van Roosmalen flatly told the professor that he did not believe in paranormal sleuthing. "Superintendent," Tenhaeff replied, "If you like, I will tell you of a few cases where the police failed and where Croiset was successful." Tenhaeff then related, in great detail, two ironclad cases. The first concerned a murder in the municipality X. After months of fruitless

investigation, the police consulted Croiset. The psychic gave such a clear description of the murderer that they were able to make an arrest. The second case concerned a theft in a factory in the town of Y, where Croiset had identified the thief.

Van Roosmalen decided to check these claims. The police officer in X, when asked about the murder case, was puzzled. He said it was somewhat unlikely that Croiset had been successful in identifying the murderer because they had no record of such a crime having been committed! Van Roosmalen's colleagues in Y admitted that a suspect had been arrested on Croiset's advice. However, the alleged thief proved to be entirely innocent and had to be released with profuse apologies. Van Roosmalen was urgently advised not to mention the name of Croiset if he should visit the police in Y.

Pollack might also have found an interview with Filippus Brink enlightening. Brink, a police officer, in 1958 completed a doctoral thesis, *Enige Aspecten van de Paragnoise in het Nederlandse Strafproces* ("Some Aspects of ESP in the Netherlands Criminal Proceedings"), in which he reported the results of a series of experiments with occult detectives and of inquiries to police authorities in both Holland and abroad. Brink had tested four well-known "psychics"—one of whom was Croiset—by handing them photographs and other objects and requesting them to give their "impressions." Some of the materials were related to police cases, others were not. The experiments were extensive and lasted for more than a year. The results were nil. Looking at the picture of a murderer, the psychics clearly saw that the man was innocent; handling a weapon that came straight from the factory, they got visions of murder and hold-ups.

In "Aid to the Police," one of his few articles published in English (*Tomorrow*, Autumn 1953), Tenhaeff had assured his readers that Croiset "does not 'fish' for information." Brink observed nothing *but* fishing.

The results of Brink's police department inquiries were hardly more comforting to the proponents of paranormal detection. With very few exceptions, all Dutch and foreign authorities stated that psychics had never been successful in furthering any police investigation. (Incidentally, this was the reply even from the Haarlem police district, where Mr. Gorter had been superintendent. See Part I.) The exceptions concerned highly ambiguous successes.

Brink recently told me: "I dare to say that, barring an occasional lucky guess, no clairvoyant has ever been able to solve a police case by paranormal means in the Netherlands." My recent inquiries to a number of Dutch police departments suggest that little has changed since Brink's 1958 publication.

Caught in Fraud

For a number of reasons that will be discussed later, these criticisms were

not seen as fatal to Tenhaeff's reputation as a careful and honest scholar. His proponents privately admitted that the professor occasionally suffered from bouts of absentmindedness and might even sometimes have been led astray by his own enthusiasm. However, they insisted that the substance of his work was unassailable. Some of them began to lose faith only in 1980, when I caught the professor red-handed in patent fraud. This time, it was difficult to think of innocent explanations.

In the course of my investigations into psychic claims, I have always concentrated on what Tenhaeff himself regarded as prize cases (to avoid the charge of biased data-selection). Given Croiset's international reputation as a psychic crimebuster, I was surprised at the scarcity of cases that would qualify him as such. Almost all the reports of his works with the police were about cases that did not result in the arrest of the actual culprit.

The Wierden affair (where Croiset is supposed to have identified the assaulter of a young girl by simply handling the hammer with which the crime had been committed) has been cited time and again by Croiset proponents, but it lost much of its appeal after C. E. M. Hansel reported that he made inquiries to the local authorities and was told that Croiset's endeavors had been of no use. Then, in the September 1980 issue of the German monthly *Esotera*, Tenhaeff published a report of a case that seemed ironclad. To summarize this report: On November 15, 1979, a state police officer, Commander Eekhof, had visited Croiset and asked him to help identify a mysterious arsonist who had terrorized the Woudrichem area for months and had completely escaped detection. Eekhof did this "in the hope that he [Croiset] would be able to provide the authorities with definitive information concerning the culprit."

A few weeks before Croiset's sudden death in July 1980, Tenhaeff had visited the Woudrichem police "to learn from Eekhof in full detail how successful his visit to Croiset had been." Tenhaeff wrote: "Everything Commander Eekhof told us was videotaped. The tapes were protocolled and the protocol was checked and signed by Mr. Eekhof."

According to Tenhaeff, Croiset was consulted at a moment when all official attempts to identify the perpetrator had proved fruitless. The clairvoyant described the arsonist as a man who "sometimes wore a uniform," "lived in an apartment building," and had "something to do with toy airplanes." Asked by Eekhof whether it could be "model airplanes," Croiset replied "in the affirmative." Eekhof allegedly "was shocked" by the clairvoyant's statements, "for Croiset's description fitted a quartermaster in his own police group."

According to Tenhaeff, at first the commander was incredulous, but "sometime later he saw himself compelled to admit that Croiset had been right: the quartermaster was a pyromaniac."

In order to check this remarkable claim, I contacted Commander Eekhof and showed him the *Esotera* article, which he had neither seen nor heard of. After having carefully read and re-read the report, he stated

positively that it contained "outright falsehoods." He invited me to listen to the tape-recording of what Croiset had really said.

The grossest inaccuracies are corrected here:

- The consultation took place on November 15, 1977, a full two years before the date given by Tenhaeff. The quartermaster was not arrested until March 1980.
- Croiset at no time mentioned a "uniform," which would have been the most striking hit.
- Croiset did not mention "toy airplanes," although he did speak of "airplanes"—"sitting in airplanes," "airfields," and "airplane construction." When asked by Commander Eekhof whether it could be model airplanes, Croiset first said yes, maybe, but then retracted and said, "No, these are big airplanes." It is quite true that the quartermaster liked to build model airplanes. But these were first mentioned by Mr. Eekhof and not by Croiset. So, if this was an ESP hit, then it was scored by the policeman and not be the clairvoyant!
- Croiset, who in an earlier attempt to "see" the culprit had put the police on a false track, had finally identified the arsonist as a person in a photograph shown to him by Eekhof. This person—whom the police already considered a possible suspect—was not the quartermaster, who later admitted the crimes.
- Eekhof certainly was not "shocked" by Croiset's statements, because he could not possibly have recognized his fellow policeman in the psychic's confused "images." The quartermaster, who did not live in an apartment building, began to be suspected only months later, for reasons entirely unconnected with Croiset's "vision."
- Tenhaeff's claim that a protocol was "checked and signed" by Commander Eekhof is categorically denied by Eekhof, who told me he had not even seen a protocol.

Before exposing this quite extraordinary case of fraudulent reporting in two Amsterdam newspapers, *De Telegraaf* and *Courant Nieuws van de Dag* (October 18, 1980), I naturally invited Tenhaeff to comment. The "stickler for complete scientific proof" flatly refused to answer any questions, shouting a number of insults before slamming the receiver down.

The reader will not be surprised to learn that Tenhaeff's Dutch version of the report, published at about the same time in his *Tijdschrift,* does not mention either "uniforms" or "signed protocols." The worst distortions were prepared for export only. If I had not sent him a copy, Eekhof might never have seen the fairy tale in *Esotera.*

Methods

As I have demonstrated, at least to my own satisfaction, Tenhaeff's reports—our principal source of information concerning Croiset—are

utterly unreliable. It is therefore hazardous to suggest possible "naturalistic" explanations for any "facts" presented in those reports. One may easily waste one's ingenuity on entirely spurious data. It is with this proviso that I will briefly offer a few conjectures about how the clairvoyant might have achieved what appear to be paranormal successes by perfectly normal means.

Croiset, a skilled hypnotist, was an expert muscle reader and a master of suggestive questioning. He was therefore well equipped for wresting shreds of information from unwitting clients and feeding these back as "telepathic" impressions.

It is possible that he occasionally resorted to cruder methods, such as using spies. In the pro-Croiset literature we find surprisingly little mention of the psychic's "assistants" and "secretaries," such as Dick West. Zorab (personal communication) has evidence that Croiset sometimes employed confederates in his experiments. Apparently the clairvoyant's professional ethics were not such as to forbid a little trickery now and then.

Even more important, Croiset knew how to make friends and influence people. He maintained very cordial relations with a number of journalists and law officers. (Some policemen were patients of "Dr." Croiset.) I do not need to point out the risks of such familiarity. Croiset was an engaging man who disarmed visitors with a convincing display of sincerity and simplicity. He was not the sort of person in whose company one felt the need to be on guard.

Discussion

The standard skeptical explanation for the alleged successes of psychic detectives is that these sensitives offer their consultants the verbal equivalent of a Rorschach test. Their statements are typically vague, rambling, and verbose. The accuracy of the readings is evaluated post factum: "Good sitters" retroactively interpret the ambiguous and often contradictory statements in such a way that they fit the true facts and obligingly forget the many details that were too wide of the mark. Complete failures are ignored or suppressed. The possibility that some of the paranormal information could have been acquired by normal means is quietly discounted. Occasional lucky guesses are enhanced by selective reporting and editorial embellishment.

The results of the present investigation suggest that this standard hypothesis does not need to be revised in order to explain the Croiset phenomenon. What always set Croiset apart was probably not the degree of his supposed paranormality but rather the success of the propagandistic efforts on his behalf. Unlike other psychics, Croiset had the extraordinary luck to find an impresario who enjoyed a fairly solid reputation as a scientist and scholar. The "Miracle Man from Holland" would never have achieved his status without the indefatigable help of Wilhelm Tenhaeff.

The fact that his mentor was an authentic university professor has always protected Croiset. Croiset was widely believed to be the most honest of men because Tenhaeff said he was. As I have suggested, the key to the Croiset mystery lay with Tenhaeff. The question now is: Why did Tenhaeff act as he did? Why risk an academic reputation by engaging in palpable fraud?

The answer, I think, can only be that Tenhaeff *had to deceive* and thought that he would be able to get away with it. Soon after he made Croiset's acquaintance in 1947, the professor must have realized that the psychic's successes in occult detection were highly ambiguous. Straight and full reports of the "police cases" would never convince those not committed to a strong prior belief in the paranormal.

Tenhaeff, whose ambition had always been to become the Sigmund Freud of psychical research, devised something he was pleased to label a "theory" that enabled him to explain all but the worst failures in terms of ESP. The red basting syringe is a typical example. Yet the professor needed at least a few ironclad proofs to underpin this odd theoretical structure. The extreme scarcity of authentic miracles forced him to fabricate them.

What now remains to be explained is how Wilhelm Tenhaeff got away with this game for so many years. I can only offer a few suggestions.

1. His status as an "official professor": Tenhaeff was hailed as the first professor of parapsychology in history, and this carried much prestige. "He must be right or else they would not have appointed him, would they," his admirers were wont to say when confronted with an unbeliever. For many, such considerations effectively settled the matter.

2. The confusion he created with his publications: To the delight of the true believers, who find obscurity sure proof of profundity, Tenhaeff's writings are chaotic, verbose, and abstruse. A thick fog seems to exude from his books. Scanning these thousands of convoluted sentences for contradictions requires many hours of exceptionally dull work. Most skeptics sensibly give up after a few pages. I myself only embarked on this dreary task as the result of a challenge. After I had published some critical remarks on psychical research in 1978, local proponents defied me to come to terms with the best evidence they thought parapsychology had to offer: the "rigorously scientific work" of Wilhelm Tenhaeff.

Critical investigation is further complicated by the fact that the professor cleverly took advantage of the language barrier. The completely fraudulent versions of the "Boy on the Raft" and the Woudrichem cases were concocted for export only. To compensate, Tenhaeff occasionally did the reverse: in the German *Zeitschrift fur Parapsychologie und Grenzgebiete der Psychologie* (No. 4, 1980), I have shown how he dishonestly "edited" a report by Dr. Jule Eisenbud of an ambiguous success in a transatlantic ESP experiment with Croiset for home consumption in Holland.

3. The ambiguous feelings within the psi community toward cheating

colleagues: The psi community has never completely freed itself from the pernicious *idée fixe* that overt criticism of a colleague may damage the cause and play into the hands of the enemies of parapsychology. Some psychical researchers began to suspect Tenhaeff long ago. Seldom, however, did they voice their doubts openly. And, when they did, some sociological mechanism seems to have prevented an adequate follow-up.

4. Tenhaeff's mastery of propagandistic techniques: Tenhaeff has always been a master of propagandistic manipulation. He deftly used his excellent relations with the media to persuade a sizable segment of public opinion in Holland that he was a prophet of a new, nonmaterialistic science, who therefore had to suffer the irrational hatred of those whose world-view was threatened by the glorious discoveries of parapsychology. He never failed to remind his audiences of the religious implications of his work or to allude darkly to possible bolshevik influences in skeptical circles. His favorite trick was to tell the public that his critics were suffering from a Freudian complex and needed psychiatric treatment rather than to reply to their impertinent questions.

Ironically, Tenhaeff's bizarre behavior convinced a number of skeptics that he was a gullible victim of a devious "psychic" rather than a deceiver in his own right. His apparent credulity served as camouflage for his dishonesty.

Conclusion

My purpose has not been to deny Croiset's paranormal powers ex cathedra. Rather, I wanted to draw the reader's attention to some false notes in the "psychic Mozart's" scores, dissonants that seem to have escaped the notice of other biographers.

Of course *if* such a thing as ESP exists, it may well provide the most economical explanation for some of the coincidences that have been reported in connection with Gerard Croiset. On the other hand, it would be rash indeed to conclude the existence of a paranormal faculty on the basis of the Croiset material. If Croiset's amazing talents of clairvoyance had been genuine, then why would Tenhaeff have felt the urge to manipulate reports and present them fraudulently as prize cases?

I certainly do not wish to be dogmatic about psychic detectives: positive evidence of a much stronger nature may yet turn up. Until it does, the "believer" is well advised not to base his belief on the "Psychic Who Never Disappointed."

Acknowledgment

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References

Brink, F. *Enige aspecten van de paragnosie in het Nederlandse Strafproces.* Drukkerij Storm, Utrecht, 1958.

_____ "Parapsychology and Criminal Investigation." *International Criminal Police Review 134* (January 1960).

Hansel, C. E. M. *ESP: A Scientific Evaluation.* Scribner, New York, 1966, pp. 197-203.

_____ *ESP and Parapsychology.* Prometheus, Buffalo, N.Y., 1980, pp. 262-68.

Hoebens, P.H. "Vom Lob der Genauigkeit in der Parapsychologie." *Zietschrift fur Parapsychologie und Grenzgebiete der Psychologie 22,* no. 4 (1980): 225-34.

Pelz, C. "Herr Croiset, Sie konnen nicht hellsehen." *Kosmos* (1959/1960).

Pollack, Jack Harrison, *Croiset the Clairvoyant: The Story of the Amazing Dutchman.* Doubleday, Garden City, N.Y., 1964.

Roosmalen, Th. van. "Ervaringen met Paragnosten en die zich zo noemen." *Algemeen Politieblad 109* (1960): 3-9.

Tenhaeff, W. H. C. "Aid to the Police." *Tomorrow,* Autumn 1953.

_____ "De Paragnostische Begaafdheid van de Heer C.H." *Tijdschrift voor Parapsychologie 23,* no. 2/3 (1955): 57-87.

_____ *Beschouwingen over het gebruik van Paragnosten.* Bijleveld. Utrecht, 1957.

_____ "The Employment of Paragnosts for Police Purposes." *Proceedings of the Parapsychological Institute of the State University of Utrecht,* no. 1 (December 1960): 15-32.

_____ *Ontmoetingen met Paragnosten.* Bijleveld, Utrecht, 1979.

_____ "Der Paragnost." *Esotera 31,* no. 9 (September 1980): 816-27.

Woudenberg, G. D. H. van. "Ervaringen met Paragnosten." *Algemeen Politieblad 113* (1964): 297-300.

Zorab, G. Review of Jack Harrison Pollack's *Croiset the Clairvoyant. Journal of the Society for Psychical Research 43* (1965): 209-12. ●

Scientific Creationism, Geocentricity and the Flat Earth

These three movements have more in common than they like to acknowledge

Robert Schadewald

> *Evolution is a scientific fairy-tale just as the "flat-earth theory" was in the 12th century.*
>
> —Edward Blick, scientific creationist[1]

Poor flat-earthers! Few modern intellectual movements have been so widely scorned and misunderstood. Among Christians, religious tolerance and ecumenicalism seem to break down at the edge of the earth. The opening quotation suggests the contempt that most "scientific creationists" feel for the flat-earthers. Comparing them to evolutionists is an especially low blow, since the flat-earthers have always been in the forefront of the battle against evolution.

Though flat-earthism is as well-supported scripturally and scientifically as creationism, the creationists plainly do not want to be associated with flat-earthers. In a public debate with creationist Duane Gish, paleontologist Michael Voorhies suggested that the Creation Research Society resembled the Flat Earth Society. According to a report of the debate published in the creationist newsletter *Acts & Facts*, Gish replied that not a single member of the Creation Research Society was a member of the Flat Earth Society and that Voorhies's linking of the two was nothing more than a smear.[2] Gish's remarks brought a rejoinder in the *Flat Earth News* from an outraged letter writer (identified only as "G.J.D.") who had read the *Acts & Facts* report. "G.J.D." contested Gish's claim that no members of the Flat Earth Society belong to the Creation Research Society, concluding, "He doesn't know what he's talking about, as I belong to both, and I am writing to him to let him know that he is wrong."[3]

Ironically, Gish may have created a fact. To protest this attack on the flat-earthers, "G.J.D." dropped his membership in the Creation Research Society.[4]

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Whether or not there are flat-earthers in the Creation Research Society, scientific creationism is little different from the flat-earth movement. Both are based on the same kind of scientific evidence and on a more or less literal interpretation of the Bible. In fact, scientific creationism, geocentrism, and flat-earthism are, respectively, the liberal, moderate, and conservative branches of a tree that has often been called "Bible-science."[5] The intense hostility expressed by the scientific creationists toward the flat-earthers does not extend to the geocentrists, who hover on the edge of respectability among scientific creationists. Indeed, although the Bible is, from Genesis to Revelation, a flat-earth book, the geocentrists have combined forces with liberal creationists to cast the flat-earthers into outer darkness.

Despite their internecine warfare, Bible-scientists are in broad agreement on a number of issues. They agree on the usefulness of the Bible as a scientific text, the weakness of mere theories, the duplicity of conventional scientists, and the impossibility of reconciling conventional science with the Bible. The creationist and the flat-earth movements have similar foundations and histories, and both have used similar strategies to propagate their beliefs. Indeed, both believe they are battling the same behind-the-scenes opponent.

To join the Creation Research Society, one must sign a "Statement of Belief." The statement begins, "The Bible is the written Word of God, and because we believe it to be inspired thruout, all of its assertions are historically and scientifically true in all of the original autographs. To the student of nature, this means that the account of origins in Genesis is a factual presentation of simple historical truths." The Flat Earth Society doesn't require members to sign a belief statement, but no flat-earther would object to the CRS statement. Indeed, similar sentiments were expressed by flat-earther David Wardlaw Scott, who wrote, "It [Scripture] never contradicts facts, and, to the true Christian student, it teaches more *real science* than all the schools and colleges in the world."[6]

Elsewhere, Scott said of his own book, "It may be that these pages will meet the need of some, who have not altogether been misled by unprovable fancies, and who will rejoice to find that the Biblical account of Creation is, after all, the only one which can be depended upon, and that Modern Astronomy, like its kindred theory of Evolution . . . is nothing but 'a mockery, a delusion, and a snare.' "[7]

While theories are the backbone of conventional science, Scott's phrase "unprovable fancies" seems to epitomize what Bible-scientists think of them. They want nothing but the facts. As Duane Gish once told an audience, "I have yet to find a scientific *fact* which contradicts the Bible, the Word of God. Now you and I are both aware of many scientific theories and opinions of scientific people that contradict the Scriptures. When we separate that which is merely opinion or theory or ideas from that which is established fact, there are no contradictions."[8] In his preface to the

creationist textbook *Biology: A Search for Order in Complexity*, John N. Moore says that "true *science*" requires that the data "simply be presented *as it is*" and that "a philosophic viewpoint regarding *origins*" cannot be science.[9]

Any flat-earther would agree. Indeed, in his lectures and writings, Samuel Birley Rowbotham, founder of the modern flat-earth movement, repeatedly emphasized the importance of sticking to the facts. He called his system "zetetic astronomy" ("zetetic" is from the Greek verb *zetetikos*, meaning "to seek or inquire") because he sought only *facts* and left mere theories to the likes of Copernicus and Newton. Rowbotham devoted the entire first chapter of his magnum opus to praising facts at the expense of theories, concluding, "Let the practice of theorising be abandoned as one oppressive to the reasoning powers, fatal to the full development of truth, and, in every sense, inimical to the solid progress of sound philosophy."[10]

The fact is that Bible-scientists suspect theoretical scientists of duplicity. Scientific creationists rarely express their suspicions in plain English, but they strongly imply that much of modern science—radiometric dating, for instance—is a fraud. One prominent geocentrist, astronomer, and computer scientist, James N. Hanson, shows more candor. In a public lecture, he said of nongeocentric astronomers, "They lie a lot."[11] Charles K. Johnson, president of the Flat Earth Society, is absolutely vehement about scientific dishonesty. He regularly calls scientists "liars" and "demented dope fiends" and claims that the entire space program is a "carnie game."[12]

Unlike most Christians, Bible-scientists insist that, if conventional

science is true, the Bible must be false. Flat-earther John Hampden put it plainly: "No one can believe a single doctrine or dogma of modern astronomy and accept Scriptures as divine revelation."[13] Like all flat-earthers, Hampden also accepted the doctrine of creation in six solar days. Commenting on the latter, he wrote, "If he can prove . . . that days do not mean days, then is the infidel fully justified in laughing to scorn every other phrase and every other statement, from the first verse to the last in the Bible."[14] Modern creationists feel the same about evolution. As Duane Gish once put it, "You really cannot believe the Bible and the theory of evolution both."[15]

Since flat-earthism is the paradigm of Bible-science, it should be discussed first. It is difficult to see how the scientific creationists, some of whom claim to discern the laws of thermodynamics in the Bible, can fail to see its flat-earth implications.

While the Bible nowhere states categorically that the earth is flat, numerous Old Testament verses clearly show that the ancient Hebrews were flat-earthers. The Genesis creation story says the earth is covered by a vault (firmament) and that the celestial bodies move inside the vault. This makes no sense unless one assumes that the earth is essentially flat.[16] Isaiah wrote that "God sits throned on the vaulted roof of earth, whose inhabitants are like grasshoppers."[17] In the book of Job, Eliphaz the Temanite says that God "walks to and fro on the vault of heaven."[18] That earth was considered essentially flat is clear from Daniel, who said, "I saw a tree of great height at the centre of the earth; the tree grew and became strong, reaching with its top to the sky and visible to the earth's farthest bounds."[19] This statement makes no sense for spherical earth.

The New Testament also implies a flat earth. For instance, Matthew wrote that "the devil took him [Jesus] to a very high mountain, and showed him all the kingdoms of the world in their glory."[20] From a sufficiently high mountain, one *could* see all the kingdoms of the world—if the earth were flat. Finally, Revelation refers to "the four corners of the earth,"[21] — corners are not generally associated with spheres.

From the foregoing, it's not surprising that flat-earthism has been associated with Christianity since the beginning. Many of the Fathers of the Church were flat-earthers, and they developed a system with which to oppose the Greek astronomy then becoming popular.[22] As late as A.D. 548, the Egyptian monk Cosmas Indicopleustes was vigorously defending a flat earth in his book *Christian Topography*.[23] But Cosmas was fighting a losing battle, and the Ptolemaic system, based on a spherical earth, rapidly took over. By the twelfth century (despite Edward Blick's implication to the contrary), the flat-earth concept was essentially a dead letter in the West.

The modern flat-earth movement was launched in England, in 1849, with the publication of a 16-page pamphlet, *Zetetic Astronomy: A Description of Several Experiments which Prove that the Surface of the*

Sea Is a Perfect Plane and That the Earth Is Not a Globe! by "Parallax."[24] For the next 35 years, "Parallax"—his real name was Samuel Birley Rowbotham—toured England, attacking the spherical system in public lectures. His completely original system, still known to its adherents as "Zetetic Astronomy," is best described in Rowbotham's 430-page second edition of *Earth Not a Globe*, published in 1873.[25]

The essence of Zetetic Astronomy is as follows: The known world is a vast circular plane, with the North Pole at the center and a 150-foot wall of ice at the "southern limit." The Equator is a circle roughly halfway in between. The sun, moon, and planets circle above the earth in the region of the Equator at an altitude of perhaps 600 miles. Their apparent rising and setting is an optical illusion caused by atmospheric refraction and the zetetic law of perspective. The latter law also explains why ships apparently vanish over the horizon when sailing out to sea. The moon is self-luminous, and it's occasionally eclipsed by an unseen dark body passing in front of it. The entire known universe is literally covered by the "firmament" (vault) so often referred to in the King James Bible.

Rowbotham and his followers made "Zetetic Astronomy" a household word in Victorian England, and the movement spread to America and the rest of the English-speaking world. Few professional academics embraced it, though there were exceptions. Alexander McInnes of Glasgow University was a vehement flat-earther. So was Arthur V. White of the University of Toronto. White, a hydraulic engineer, designed several large hydroelectric dams built in Canada around the turn of the century.

While the Bible doesn't flatly state the shape of the earth, it repeatedly says in plain Hebrew that the earth is immovable.[26] Thus, while churchmen found it easy to ignore its flat implications and adopt the spherical system of Ptolemy, they were rudely shaken by Copernicus and Galileo. The Catholic church's reaction to Galileo is well known. It's less well known that most of the "reformers"—Luther, Calvin, Wesley—also rejected the Copernican system on scriptural grounds.[27] A few Protestant Bible-scientists have been fighting a rear-guard action against heliocentricity ever since.

Unlike the flat-earthers, the geocentrists were seldom able to agree on a sytem. Some, like James Gillespie of Dumfries, Scotland, stuck to the Ptolemaic system.[28] The Muggletonians developed their own system.[29] Others contented themselves with sniping at Copernicanism. Geocentrist J. R. L. Lange, author of *The Copernican System, the Greatest Absurdity in the History of Human Thought*,[30] pillaged flat-earth sources for arguments and actually quoted them in his text.

Modern geocentrists have more or less settled on the system proposed by Tycho Brahe, the Danish astronomer who was Kepler's mentor. The Tychonic system is essentially the Copernican system with a fixed earth. The moon and sun both orbit the earth, and the planets orbit the sun.

Except for the inner planets Mercury and Venus, the planets' orbits around the sun also encompass the earth. The geocentrists publish the *Bulletin of the Tychonian Society*. Several prominent creationists, including Harold W. Armstrong, editor of creationism's flagship journal, *Creation Research Society Quarterly*, are frequent contributors.

While geocentrism seems to be growing rapidly, the reaction among liberal creationists is mixed. The *Creation Research Society Quarterly* generally maintains a discreet silence about geocentricity, and the *Bible-Science Newsletter*, another major creationist periodical, has declared its editorial neutrality on the question.[31] When the geocentrists get their biblical message across, they make converts. Astronomer James N. Hanson once wound up a geocentric lecture by saying, "Geocentricity is correct, because that's what the Bible teaches." An unidentified lady responded, "I am overwhelmed. But I believe everything you say, because I believe in the inerrancy of the Bible."[32]

The genesis of scientific creationism is difficult to pin down. The creationists reject much of modern geology, cosmology, and evolutionary biology, but flat-earthers and other Bible-scientists were rejecting the first two before Darwin published *Origin of Species* in 1859. After 1859, the same people descended upon Darwin. Conservative religious magazines and flat-earth journals like the *Earth—Not a Globe—Review* constantly attacked geology and the theory of evolution. In 1923, the Seventh Day Adventist George McCready Price published *The New Geology*, a monumental work of Bible-science. Since Price's work had little influence outside his own sect, perhaps the birth of scientific creationism should be traced to the publication of *The Genesis Flood*, by John C. Whitcomb, Jr., and Henry M. Morris in 1961.[33]

The Genesis Flood argues that the Noachian Deluge accounts for the geological evidence better than conventional uniformitarian geology. In it and subsequent books, the creationists have offered scientific arguments to prove that the earth is only 6,000 to 10,000 years old and that all forms of life were separately created.

Soon after *The Genesis Flood* was published, two of the major creationist organizations, the Bible-Science Association and the Creation Research Society, were formed. The third major group, the Institute for Creation Research, was organized in 1970. Individually and collectively, through books, pamphlets, and public lectures, the creationists took their message to their constituents. In the early 1970s, ICR creationists began debating evolutionists whenever possible. It is a highly successful tactic. Frequently an evolutionist, up against an experienced creationist debater, looks like an unarmed man assaulting a fortress.

Other Bible-scientists have proved to be effective debaters. George Bernard Shaw described a public forum in which a flat-earther laid to waste the spherical opposition.[34] Rowbotham was widely known as a tiger on the platform and he was seldom bested. (The good citizens of Leeds, England,

once ran him out of town, having been unable to make a more effective reply to his flat-earth arguments.[35]) In Brockport, New York, in March 1887, two scientific gentlemen defended the sphericity of the earth against flat-earther M. C. Flanders on three consecutive nights. When the great debate was over, five townsmen chosen to judge the matter issued a unanimous verdict. Their report, published in the Brockport *Democrat*, stated clearly and emphatically their opinion that the balance of the evidence pointed to a flat-earth.[36]

Cash offers are another way Bible-scientists taunt opponents. In the 1920s and 1930s, Wilbur Glenn Voliva of Zion, Illinois, offered $5,000 to anyone who could prove to him that the earth isn't flat. No one ever collected. At this writing, creationist engineer R. G. Elmendorf has a standing offer of $5,000 to anyone who can prove to him that evolution is possible. Elmendorf is also a geocentrist and offers $1,000 to anyone who can prove that the earth moves.[37]

Perhaps someday the scientific creationists will make peace with the flat-earthers. While they disagree on details, they claim to be fighting the same enemy.

"I believe the real source of Modern Astronomy to have been Satan," wrote flat-earther David Wardlaw Scott. "From his first temptation of Eve in the Garden of Eden until now, his great object has been to throw discredit on the Truth of God."[38] John Hampden agreed, calling the spherical theory "that Satanic device of a round and revolving globe, which sets Scripture, reason, and facts at defiance."[39]

Henry M. Morris, director of the Institute for Creation Research, came to precisely the same conclusion about evolution: "Behind both groups of evolutionists [theistic and nontheistic] one can discern the malignant influence of 'that old serpent, called the Devil, and Satan, which deceiveth the whole world' (Revelation 12:9). As we have seen, it must have been essentially the deception of evolution which prompted Satan himself to rebel against God, and it was essentially the same great lie with which he deceived Eve, and with which he has continued to 'deceive the whole world.' "[40]

According to Charles Johnson, president of the Flat Earth Society, both deceptions will soon be over. He claims that the U.S. government—perhaps the present administration—will one day officially proclaim that the earth is flat.[41] That day will also mark the downfall of evolution.

Notes

1. In *21 Scientists Who Believe in Creation*, 2nd ed. (San Diego: Creation-Life Publishers, 1977), p. 7. Creation-Life Publishers, Inc. is controlled by the Institute for Creation Research.

2. *Acts & Facts 8*, no. 5 (May 1979): 3

3. *Flat Earth News*, September 1979, p. 4.

4. Personal communications from Charles Johnson, president of the Flat Earth Society, and from "G.J.D."

5. Compare the creationist-Bible Science Association, headquartered in Minneapolis, with the nineteenth-century flat-earth Bible-Science Defense Association, headquartered in London.

6. *Terra Firma: The Flat Earth Not a Planet* (London: Simpkin, Marshall, 1901), p. 284.

7. Ibid, p. iii.

8. Duane T. Gish, tape of a lecture given at the Lutheran Evangelistic Conference in Minneapolis, Minn., January 23, 1978.

9. Grand Rapids, Mich.: Zondervan, rec. ed., 1974, p. xvii.

10. *Earth Not a Globe* (London: John B. Day, 1873), p. 8.

11. James N. Hanson, tape of a lecture given in Texas in 1979.

12. See any issue of the *Flat Earth News*.

13. Quoted by "Rectangle" (pseudonym of Thomas Winship) in *Zetetic Cosmogony: or, Conclusive Evidence That the World Is Not a Rotating Globe, but a Stationary Plane Circle* (Durban, South Africa: Y.L. Cullingworth, 1899), p. 144.

14. Ibid.

15. Gish, op. cit.

16. See any Jewish encyclopedia, under "Cosmogony."

17. *New English Bible* (Oxford: Oxford University Press, 1979), Isaiah 40:21-22.

18. Ibid., Job 22:141.

19. Ibid., Daniel 4:10-11.

20. Ibid., Matthew 4:8.

21. Ibid., Revelation 7:1.

22. Andrew D. White, *A History of the Warfare of Science with Theology in Christendom* (New York: George Braziller, 1855), vol. 1, p. 92.

23. London: The Hakluyt Society, 1897.

24. Birmingham, England: W. Cornish, 1849.

25. London: John B. Day, 1873.

26. See I Chronicles 16:30, Psalm 93:1, Psalm 96:10, and Psalm 104:5, for instance.

27. White, op. cit., pp. 126-128.

28. See his *The Triumph of Philosophy, or, the True System of the Universe* (Dumfries, Scotland: Published by the author, 1890).

29. The system is described in Isaac Frost's *Two Systems of Astronomy* (London: Simpkin, Marshall, 1846.)

30. Oakland, Calif.: Pacific Press, 1901.

31. See the March 1981 issue, p. 3.

32. Hanson, op. cit.

33. Nutley, N.J.: Presbyterian and Reformed Publishing Co.

34. In *Everybody's Political What's What*, quoted by Martin Gardner in *Fads and Fallacies in the Name of Science*, (New York: Dover, 1957), p. 14.

35. *Zetetic*, 2, no. 5 (July 1873):39.

36. *The Earth; Scripturally, Rationally, and Practically Described. A Geographical, Philosophical, and Educational Review, Nautical Guide, and General Student's Manual, #17* (November 1, 1887), p. 7.

37. Personal communication.

38. Scott, op. cit., p. 287.

39. *The Earth: Scripturally, etc.*, #8 (December 11, 1886), p. 60.

40. Henry M. Morris, *The Twilight of Evolution* (Grand Rapids, Mich.: Baker Book House, 1963), p. 93.

41. Personal communication. •

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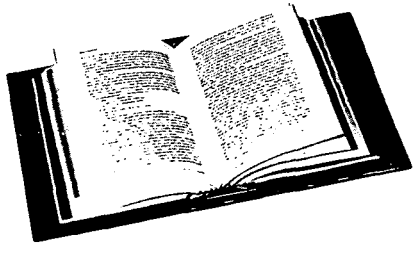

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Book Reviews

The Invisible Picture. By Louisa E. Rhine. McFarland, Jefferson, N.C., 1981. 267 pp.

Reviewed by Norman Guttman

Over the years, thousands of people wrote to J. B. Rhine's parapsychology laboratory about their personal psychic experiences. In 1948 Louisa Rhine, with her husband's encouragement, began a series of studies of these anecdotes. *The Invisible Picture*—"a factual account of a decades-long study of a large number of personal experiences that seemed to be psychic"—brings together her fifteen previous articles on spontaneous episodes of telepathy, clairvoyance, precognition, psychokinesis, general ESP, messages from the dead, and apparitions. Some episodes of earlier case studies (by Myers, Saltmarsh, and Tyrrell) form part of the data-base of this "different kind of case study." It is all here, including an expression of hope for the Geller effect, "in which, by mind alone, it appears, the strongest metal can be bent or distorted."

The account is indeed full and complete; nothing parapsychology watchers have come to expect from the Rhines is left out. But, as a result of the revival and pursuit of the case-study method, new things have been added; gullibility is raised to a higher degree, and reasoning becomes more fallacious and uncritical than ever before. Familiar in this attempt to bolster the case for psi are various rhetorical ploys: professions of allegiance to science and objectivity, the display—using new materials—of laborious data-gathering, and the seeming cautiousness about drawing conclusions. Again in evidence is the ensnaring argumentation that relies on hints and suggestions, and on intimations couched in the form of leading questions, so that the reader is drawn toward beliefs that the writer can avoid asserting in positive terms. In the Preview of the present book, the author strives to dissociate psi and the psychic from the miraculous and the superstitious, from anything religious, and from the notion that psychic experiences are the sign of a special gift for the benefit of humanity. On the contrary: the 140-odd stories Louisa Rhine recounts in her own words are for the most part so commonplace and ordinary as to create the impression that psi—which is the name the Rhines have given to

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telepathy, clairvoyance, PK, and so on—is as familiar as Campbell's soup and apple pie.

Now, having indicated a few features of the style and strategy of the presentation, I shall turn to the substance and method of these studies. The first question must be: How does Louisa Rhine justify the case study approach to parapsychology? On what basis is a resurrection of the unregulated anecdotal method now in order? She considers the question herself and her answer gives the whole thing away. "Because of experimental tests in the field of parapsychology [ESP] is now known to be a natural human power or ability, the result of an obscure capacity to know or get information without the use of the senses. It has in addition an extramotor aspect called psychokinesis (PK) ..." (p. 2). "It ... took decades of experimentation in this unpopular field to show that human beings do have psychic ability" (p. 7). "Both experimental findings [on telepathy and clairvoyance] showed that the old idea that nothing can enter the mind except by way of sense is wrong, but that an extrasensory way of knowing exists and can operate on both "thoughts and things."

Then Louisa Rhine dismisses the entire body of criticism of experimental parapsychology in a footnote (p. 16): "Because the work is essentially sound, the critics need not claim further space here." Sweeping aside with a gesture all the failures to replicate the results of card-guessing and dice-influencing studies, indifferent to the problems that surround the analysis and interpretation of such data and incognizant of the crucial question as to whether the *psi*-theory qualifies as a definite, meaningful, testable scientific hypothesis, she evidently feels well prepared to study the masses of personal psychic experiences reported to her "and the processes that produced them." The one and only process considered throughout the studies and in the present book as an explanation for these experiences is *psi*. The conclusion is firmly in hand before the investigations begin. We shall see, in fact, that this conclusion is the precondition of the very method Dr. Rhine adopted for dealing with her case material.

The investigator was well aware of all the errors of human testimony that can contaminate case studies. These hazards—the exaggerations, the selectivity of memory, the simple lying—are discussed in Chapter 4 ("A Different Kind of Case Study") and in the review of earlier case studies in Chapter 3. But how did she go about collecting and selecting her own material? Instead of dealing with "cases authenticated in the time-honored way" she decided: (*a*) To get "*numbers* of similar cases," i.e., "there must be at least 50 cases showing any given feature, for instance a precognitive or apparitional effect." (*b*) By way of criteria, to accept a given case if it fulfilled the requirement "that it seems to be an instance in which an experiencing person received information that appeared not to have come from sensory sources and which seemed to be reasonably beyond conjecture and coincidence" (p. 34).

The criteria for acceptance are thus *seemings* and *appearances* and then *seemings* of things not to be coincidences! And who turns out to be the judge of these seemings and appearances? None other than Louisa Rhine, of course. Not only did she put the cases in similar piles, but she took it upon herself to judge what was not a coincidence!

Because of Louisa Rhine's pretense that she can decide whether any given correspondence between a thought and an event is or is not a coincidence, her entire

work cannot be taken seriously by any thinking person. This pretension to knowledge is baseless and logically absurd. It is the greatest of the new fallacies this revival of the anecdotal method has introduced.

Everyone knows that coindicence is the crux of the whole matter—that when a person dreams or thinks of something and then it turns out that what was dreamed or thought about actually happens, had happened, or is the case, it is due to chance. Everyone knows that some such coincidences or correspondences occur all the time and *must* occur even when there is no chain of causal connections linking the thinker or dreamer and the thing thought about or dreamed about. [See, e.g., the article "On Coincidences," in this issue.]

What Louisa Rhine has decided, in effect, is that without any base-line information about the frequency of chance coincidences she can rule out the operation of chance in every one of the cases brought to her attention. In view of this, it is rather of secondary importance that she made no attempt (except in one instance of the thousands dealt with) to verify or corroborate the authenticity of these volunteered reports; the acceptance of them at face value does, however, betoken a surpassing level of innocence. Most of us would at least like to know a little something about the mental status of a person who tells us about the apparition of a dead or absent relative—in particular, the informant's proneness to visual hallucinations.

Dr. Rhine makes no reference to the important calculations by Luis W. Alvarez in 1965 of the expected frequency in the U.S. population of a certain highly restricted kind of coincidence—that is, when one thinks about one of the many persons one knows and then *within five minutes thereafter* hears about that person's death. Dr. Alvarez estimates that this type of coincidence will occur about ten times per day in the United States. ["A Pseudo-Experience in Parapsychology," *Science, 148:*1541 (1965).] If one uses the rather conservative assumptions in the Alvarez model, it can be estimated that about 300 times a day in the United States a person thinks about someone and in the ensuing 24 hours chances to hear of that someone's death, thus furnishing the conditions for that type of "precognitive" experience. Louisa Rhine's assemblage of psychic experiences, numbering in the tens of thousands, obviously constitutes only a minute fraction of millions, literally, of *death-premonitions alone* that could have been communicated to her from all over the world during the time she was collecting materials. If one attempts to estimate how many pseudo-psychic experiences of all kinds will occur over a span of time—for example, anticipations of illness or thoughts and dreams of good fortune—the total frequency becomes astronomical.

It is well worth pointing out, I believe, that the kind of thinking that Louisa Rhine promotes in *The Invisible Picture* would, if widely adopted, quite nullify and undermine one of the basic ways human beings understand the world. Simply put, we understand that some events are causally connected while other events happen by chance. The distinction between these great categories is both a fundamental fact about the world and fundamental to our making sense of it. The general idea of the chance relationship must be used over and over again in order to make sense of ordinary experience. Romeo and Juliet both live in Verona and meet but their encounter is the consequence of two independent causal chains—and that's all there is to it. What the parapsychological way of thinking would have us do is to eliminate chance as a mode of explanation and understanding, and that would be nothing short of an intellectual disaster. That would constitute the adoption of a

certain special kind of paranoia—the habit of seeing linkages and connections everywhere, in a world in which only a few things are connected and most are in fact unconnected. Sensory knowledge involves causality and is limited. A little reflection will disclose that any knowledge of a particular event implies that there has been a causal connection between the person and the environment, direct or indirect. Furthermore, unless there has been such a connection, a thought or a perception does not qualify as knowledge at all, but is a mere guess. Extrasensory perception is not knowledge *by definition*; to call it knowledge is a contradiction in terms. ESP should not primarily be regarded as empirically false, but as simple nonsense.

It may be of passing interest to describe the sort of information *The Invisible Picture* contains. One can learn that spontaneous episodes can be classified under five types (clairvoyant, telepathic, etc.); that different degrees of conviction attach to the various kinds; that the cognitive experiences are either waking or dreaming and the waking ones are either sensory or nonsensory, the dreams either realistic or not. One empirical question is why there are relatively so few PK episodes. A "theoretical" question is whether in telepathy the thought transferred is sent by someone, or whether the recipient draws the thought to him, or whether both are happening.

The reader of Louisa Rhine's exercise in pseudoscience will likely find the data-compilations rather tedious and trivial. For those who wish to apply their powers of critical analysis, this book is a prime example of illogic and shoddy thinking. •

Some Recent Books

Gadd, Laurence D., and the Editors of the World Almanac. *The Second Book of the Strange.* World Almanac Publications, New York, 1981, 341 pp., $7.95, paper. An entertaining but nevertheless responsible synopsis, this is a much-improved sequel to the *World Almanac Book of the Strange (SI,* Spring/Summer 1978). The sections on UFOs, strange beliefs and practices, cults, psychic phenomena, and parapsychology are for the most part reliable. The editors have gone out of their way to seek out and publish critical scientific perspectives on most of the claims described, a refreshing approach in a mass-market book.

Gardner, Martin. *Science: Good, Bad, and Bogus.* Prometheus Books, Buffalo, N.Y., 1981, 408 pp., $18.95. Martin Gardner directs his lively wit and sharp perception to the many foibles of fringe-science. This book serves as a long-awaited and much-needed sequel to his classic *Fads and Fallacies in the Name of Science.* A collection of his writings on pseudoscience over the past several decades, it is made fresh and topical by inclusion of readers' criticisms and his responses, plus timely and well-informed postscripts by Gardner that bring each subject up to date. Many articles (e.g., "Magic and Paraphysics," "Geller,

Gulls, and Nitinol," "Quantum Theory and Quack Theory") are memorable, and their collection in one volume is a valuable service. But there are surprises even for the longtime Gardner fan. Must reading for everyone interested in the paranormal, proponents and critics alike.

—*Kendrick Frazier*

Articles of Note

Alcock, James E. "Pseudoscience and the Soul." *Essence* (Canada) *5* (1):65-76, 1981. Sequel to the author's "The Psychology of Near-Death Experiences" (SKEPTICAL INQUIRER, Spring 1979). Discusses the two essential flaws of the so-called "scientific evidence" for life after life: (1) reliance on subjective reports gathered sometimes years after the experience and then interpreted "by and large literally as though subjective experience is the same as objective reality," and (2) dismissal of psychological, pharmacological, and neurological explanations. "The most intriguing question concerns not the near-death experience itself but the way in which researchers such as Moody, Ring, and others so cavalierly dismiss the argument that near-death experiences are generated, not by experience in another 'reality,' but by a brain in trouble, a brain under stress, a brain whose critical faculties are in recess."

Broad, William J. "Louisiana Puts God into Biology Lessons." *Science*, August 7, 1981, pp. 628-29. Report on Louisiana's bill, signed July 21, requiring that "creation science" be elaborated in the classroom whenever Darwin and evolution are mentioned.

Dean, Douglas. "Parapsychology as an Accepted Science." Followed by "Reply to Dean," by Brian Mackenzie and S. L. Mackenzie. *Journal of Parapsychology*, December 1980, pp. 389-393. Interesting discussion and exchange about the main factors responsible for the Parapsychology Association's admission to the AAAS in 1969. Dean feels it was the PA's three-year educational and lobbying effort: twelve 4½-pound packets were prepared for the AAAS Affiliation Committee and letters were sent to all 530 members of the AAAS Council. The Mackenzies argue that Margaret Mead's personal advocacy was the crucial factor, along with what J. A. Wheeler has referred to as "the permissiveness of the time."

"Encountering Hynek." *Discover*, August 1981, p. 8. Brief and somewhat emotional criticism of J. Allen Hynek and his article on the UFO phenomenon in the July *Technology Review*.

Evans, David S. "The Great Moon Hoax—I." *Sky and Telescope*, September 1981, pp. 196-97. University of Texas astronomer recounts the *New York Sun*'s famous 1835 hoax. A continuing series of articles reported that the astronomer Sir John Herschel's telescopic observations from South Africa had discovered birds, beasts, fishes, vegetation, and groups of winged inhabitants on the surface of the moon.

Frazier, Kendrick. "Will the Real Science Please Stand Up." *SciQuest* (American Chemical Society), September 1981, pp. 11-15. Article based on interviews with a number of scientists about the effects—bad, good, and indifferent—of pseudoscience on both science and society.

Gould, Stephen Jay. "Quaggas, Coiled Oysters, and Flimsy Facts." *Natural History*, September 1981, pp. 16-26. Examination of a once-popular but now discredited biological theory called telegony concludes with some analogies to the present evolution-creationist controversy. "The need to distinguish sturdy fact (pervasive pattern) from shaky factual claim (single cases with dubious documentation) has never been more evident to me than in the current debate between evolutionists and those latter-day antediluvians who call themselves, in the nonsense phrase of the decade, 'scientific creationists.' The fact of evolution is as sturdy as any claim in science (which does not mean that it is absolutely certain, because nothing is, aside from ignorant dogmatics). Its sturdiness resides in a pervasive pattern detected by several disciplines—for example, the age of the earth and life as affirmed by astronomy and geology, the pattern of imperfections in organisms that record a history of physical descent (the primary contribution of biology) . . . Against this pattern, creationists employ the destructive, shotgun approach—presenting no testable alternatives, but firing a volley of rhetorical criticism in the form of unconnected, shaky factual claims—a potpourri (literally, rotten pot, in this case) of nonsense that beguiles many people because it masquerades in the guise of fact and trades upon the false prestige of supposedly pure observation."

Marks, David. "Sensory Cues Invalidate Remote Viewing Experiments." *Nature* ("Matters Arising" section), July 9, 1981. Brief report describes problems in the rejudging by Tart of the Targ and Puthoff remote-viewing experiments and rebuts the claim (*Nature*, March 13, 1980) that sensory cues were not present in the later experiments. Puthoff and Targ reply in the July 23 *Nature*. Marks has submitted to *Nature* a response to that reply.

Matthews, L. Harrison. "Piltdown Man: The Missing Links." *New Scientist*, April 30, 1981, pp. 280-82, through July 2, 1981, pp. 26-28. In a ten-article series in ten consecutive issues, a former scientific director of the Zoological Society of London presents his reconstruction of the possible events that led to the Piltdown finds and the subsequent revelation that they were fraudulent.

"Occult Beliefs." *American Scientist* ("Letters" section), May-June 1981, pp. 261-65. Eight letters of reaction to Singer and Benassi's article on occult beliefs in the January issue, with a response by the authors.

Owens, A. J. "On the Use of Fourier Transforms to Explore Biological Rhythms." *Byte*, April 1981, pp. 314-26. Physicist applies his own microcomputer program to birthdate-based biorhythm theory and finds "no evidence whatsoever for enhancements above the background noise level in the biorhythm range."

Schadewald, Robert. "Earth's Poles Don't Shift." *Fate*, October 1981, pp. 114-20. Report on the history of crank pole-shift theories.

—*Kendrick Frazier*

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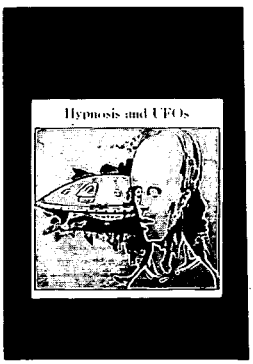

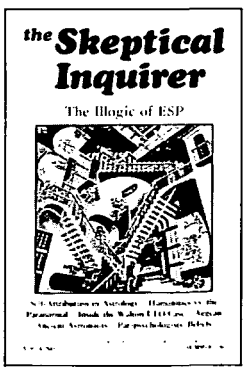

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Follow-up

Remus Extremus

The following commentary by Dennis Rawlins, a former member of CSICOP's Executive Council, offers his views on a complex and controversial issue that had its genesis prior to the formation of CSICOP but which involves persons who became affiliated with CSICOP when it was created in May 1976.

This brief note is intended only to help the reader understand the chronology of events to which Rawlins refers.

The September/October 1975 issue of The Humanist *magazine contained an article critical of astrology by L.E. Jerome. The article also questioned claims made by the French cosmobiologist Michel Gauquelin that his data showed that more than chance expectation of France's outstanding athletes were born when the planet Mars was in either of two certain key sectors of the sky. This hypothesis is known as the "Mars Effect."*

The Humanist*'s editor, Paul Kurtz, provided space for a detailed rebuttal by Gauquelin in the January/February 1976 issue, which also contained an article critical of astrology by astronomy professor George O. Abell. The same issue contained an article by statistics professor Marvin Zelen that proposed a new test of certain aspects of the Mars Effect hypothesis, using French and Belgian data, which became known as the "Zelen test." A few months later, when CSICOP was formed, Kurtz became its co-chairman. Zelen and Abell were among those named Fellows.*

Gauquelin encountered some data-gathering problems in carrying out the Zelen Test, but his findings—which he concluded supported the Mars Effect hypothesis—were published in a six-page article in the November/December 1977 issue of The Humanist, *where the issue had first been raised. In a companion paper, Zelen, Kurtz, and Abell acknowledged that the results showed that "if one had a high prior 'belief' that there is a Mars effect, then the Gauquelin data would serve to confirm this prior belief." They raised several serious questions about the data, however, and therefore cautioned that the results should not be considered a clear verification of the Gauquelin claims.*

At the time the Zelen test was proposed in 1976, Abell wrote: "If all of Gauquelin's work is re-checked and his results hold up, then it is necessary to repeat the experiment with a new sample, say in the United States." Gauquelin agreed to this in 1977 even before the Zelen test results were published. Rawlins played a role in the U.S. test by performing the astronomical calculations. The results of this test were negative; that is, if there is a Mars Effect it does not exist for outstanding U.S. athletes.

These test results, which Rawlins does not question, were published in the Winter 1979-80 SKEPTICAL INQUIRER. Space was provided to enable Gauquelin to offer his dissenting views as well as to Rawlins, who gave a straightforward report of the U.S. test but in added notes criticized the previous Zelen test.

Rawlins had doubts about the Zelen test. Its design, he said, practically ensured a pro-"Mars-effect" result if something was awry with the original Gauquelin data, something the test could not determine. He had expressed these doubts first in memos and then publicly in the "From Our Readers" column in the Winter 1978 SKEPTICAL INQUIRER, in rebuttal to a letter from Gauquelin. In that letter Rawlins wrote: "It should be clearly understood that the CSICOP as a body never had anything to do with the Humanist *Zelen test 'challenge' . . . published before the Committee was founded." However, Rawlins raised the Zelen test issue at the annual meeting of the Council in Washington in late 1978. A Council member who had difficulty understanding the basis of Rawlin's criticisms asked him to provide a clearly written and concise summary of the issues, free of invective, together with his recommendations. Rawlins did not do so.*

Rawlins intensified his criticisms. Unfortunately he pressed them so strongly and often in such a personal and accusatory manner that he eventually antagonized many members of the Council as well as persons outside CSICOP. Rawlins provoked other disputes as well. In early 1978, Rawlins, in the name of CSICOP and without its authorization, had strongly protested to University of Toronto officials an astrology conference planned by that university. CSICOP was subsequently blamed for the cancellation of the conference.

Prior to the 1979 annual meeting in New York City, Rawlins requested advance payment of travel funds so that he could attend, and a check was sent promptly. But Rawlins decided instead to boycott the meeting, without informing the committee that he would not attend. At the meeting, Council members opted not to reelect Rawlins.

Rawlins eventually decided to air his grievances in Fate *magazine, in a long article titled "sTARBABY" in the October 1981 issue. He charged CSICOP and its officials with an attempt to "cover-up" the Zelen test results and claimed he had been the victim of "censorship" by the Council and the SKEPTICAL INQUIRER. The editor promptly invited Rawlins to air his grievances in the pages of the SKEPTICAL INQUIRER with the assurance that there would be absolutely no changes in his copy. Rawlins requested, and received, two extensions of the space allotment originally offered. The following, then, is that article exactly as submitted by Rawlins.*

The article's publication here in no way should be construed as a validation of its accuracy. To the contrary, many of its assertions are known to be false, innaccurate, or misleading. Three of the more blatant are corrected in footnotes by the editor.

Following the Rawlins article are a response from the Executive Council and a joint response from George Abell and Paul Kurtz.—THE EDITOR

Persistent censorship by CSICOP's Council has hitherto prevented SKEPTICAL INQUIRER readers from learning of the behind-the-scenes horrors (bowdlerization, incompetence, threats, snoops, secret "elections," excommunications, etc.) that have characterized for 6 years CSICOP "Kurtz-Zelen-Abell" (KZ&A) investigation of the neoastrological "Mars Effect" of Michel Gauquelin (G), allegedly

linking sportsability to Mars' diurnal celestial position.

I should say at the outset that I am as disbelieving re the Mars Effect as I am re all paranormal claims. (See, e.g., my article, *SI*, v. 2, #1, pp. 62-83, 1977 Fall/Winter.) This is a separate question from that of ensuring proper procedure, which is what the hidden controversy has been about.

The Mars Effect study has been by far *the* major scientific investigation by the Committee for the *Scientific Investigation* of Claims of the Paranormal. As is well known to CSICOP's Council[1] (on which I once sat, having been a co-Founder of the organization in 1976), I am in truth the scientist who performed virtually all the CSICOP science of the experiment, though this fact has been repeatedly mis-stated in CSICOP accounts: the Committee's press-release (in which I am described as merely "elaborating" on KZ&A's "results") and at *SI* v. 4, #4, p. 58 (and *SI* v. 5, #1, pp. 85-86, where I was accused of incompetence by CSICOP Fellow Lawrence Jerome,[2] who in 5 years of trying had not computed the G project—which at CSICOP's request I performed in a few hours).

Now that some of the story has broken in a national magazine—"sTARBABY" in the Oct. *Fate*—and is due to be investigated in an entire issue of E. Michigan U. sociology prof Marcello Truzzi's *Zetetic Scholar*, I have finally been permitted an uncensored say in *SI*.

As will shortly become evident, I do not intend to let the culprits off with a polite wristslap—since what they did was done wilfully, with knowing dishonesty in some cases (for a Higher Truth), in the face of years of explicit warnings that the scandal was building into the worst in the history of rationalism and would curse the anti-occultist movement longer than the still-regretted 1950 censorship of the Freudian astronomer Velikovsky.

One reason I have gone public with this uniquely gross affair is just that: I want it to remain unique. The surest way to prevent a repetition is to lay out the full story, for the benefit of future anti-mystic organizations—as a case study in how not to conduct their business.

In the notorious Velikovsky case, at least it could be said in defense of the Science Mestablishment that V was obviously incompetent at celestial mechanics. (Also: no one threatened V with retribution for speaking out.) But in the sTARBABY affair, the censors also assumed the role of bunglers.

The history of KZ&A's hilarious private gyrations 1975-1980 is set out in gruesome detail in the *Fate* article—and in "The Conversion of the Keystone CSICOPs" (1980/3/21, refused *SI* publication at the time as overheated, despite my offer to bend re matters of style). "Conversion" is available from my address.

Instead of getting involved in technical details, let us just quote (as I for years vainly urged be done in *SI*) from private reactions (commentators all non-mystics) to the zany reality behind the sober facade ("the committee has [proceeded] with care & diligence," *Hum.* 1977 Nov./Dec., p. 29): Martin Gardner (Council): "an incredible & truly hilarious foul up." James Randi (Council): "If we have to start the same game that the parapsychologists are playing—covering up for our mistakes—then we should get out of the business altogether . . . The [KZ&A] piece was a disaster. We have egg on our collective face . . . This letter is not for distribution [outside Council] . . . No one else will know of it."

Ray Hyman (sole Councillor trained in statistics): "statistical parts . . . absolutely silly & embarrassingly so . . . incompetent . . . it tarnishes the Committee . . . " Prof. Elizabeth Scott (Statistics Dept., U. Cal., Berkeley, CSICOP's subcommittee

on Mars Effect): "I feel strongly that the discussion may be misleading."

J. Derral Mulholland (internationally respected expert in celestial mechanics, Astronomy Dept., U. Texas, Austin), re the astronomical "expertise" increasingly dominating CSICOP: "profound ignorance of fundamental . . . astronomy . . . serious lack of professional integrity in [dealing with] work so far outside . . . professional competence . . . cast a pall of suspicion on the motives & methods of CSICOP as a whole . . ." (See *SI* v. 3, #2, p. 68).

Ken Frazier (Council, *SI* Editor): it turned out that Rawlins "understood [the scientific issues] better than anybody else" on CSICOP.

Because Zelen has for years (since 1978) refused to reply *only* to my correspondence on G (though I was on CSICOP's Council & Ed. Brd. and the subcommittee on G), I feel justified in quoting some comments (on Zelen's behavior) by a statistics prof (formerly a CSICOP Fellow): Zelen "has his . . . prestige a little bit on the line . . . not really taking a serious look . . . and not really bowing out. And I think it's a mistake . . . I did talk to him at some length about it . . . and he . . . said . . . 'I just don't answer any of the correspondence and every once in a while I look at it . . . think of something to say . . .' the Committee has treated it all very shabbily . . ." Just as soon as I was safely off the Council & he'd replaced me (exactly one day after official notification, to be exact), Abell finally admitted to Council: "In retrospect, I think Dennis was correct, not only in his gut feelings about the whole Gauquelin affair, but in how it would come out . . . The more I think about it, the more I think that Dennis' insight was correct in all respects."

A brief account of the Mars Effect affair (sTARBABY): In the 1975 Sept./Oct. *Humanist* (along with the famous "Objections to Astrology" signed by the 186 scientists), then-Editor Paul Kurtz innocently published (without proper peer review) a misbegotten attack (by Jerome) on G. Kurtz reacted to this blunder with another: he rushed Zelen's Control Test ("Challenge" to G) to press (1976 Jan./Feb. *Hum.*) to beat a deadline. When the test results came out pro-neoastrology, the grounds of the test were switched (see details in *Fate's* sTARBABY account)—and the very few females of the test-sample were dropped from it in order to make the statistical significance look weak enough to say that the test results did not look quite pro-G. (Curious that on 1978/12/5, Kurtz also attempted to remove the only female among CSICOP's Fellows.)

I continued (1975-1978) to protest the proceedings. (Politely for 3 years—*until* the coverup became naked in late 1978, at which point my frank descriptions of misbehavior were censored for being too ugly! Blame-the-mirror. Repeated queries of KZ&A re reportage of this test received no written reply from 1978 Spring until 1980/1/5; *still* 0 from K & Z.)

Stung again, Kurtz next announced a new, U.S. test of G. The only catch was that none of the Keystone CSICOPs could make any progress with the necessary calculations, except in the alibi department. So Kurtz finally called on me to do the work—the very person who had recommended against getting stuck in sTARBABY.

No sooner had I finished & written up the U.S. test (1978/9/18) than Kurtz tried to grab it back again, to control the reportage. Then Abell phoned me up Oct. 5 for over an hour to discover how to perform the computations and to accuse me of sample-fixing, bullshitting, and faking. On Oct. 6 & 11, he contacted various

scholars in the San Diego area, trying to uncover evidence that I had a secret math assistant doing my work! (Questions that will suggest clues to motivation here: *Why* was Abell so anxious to discredit a supposed colleague? By contrast: why did he not check into G's background? Hint: I was then on the CSICOP Council and he was not—a situation he finally succeeded in inverting, at a terrible cost to the Committee and himself.)

At this time, chapter-slots in *Science & the Paranormal* (Scribner's, 1981)—senior editor Abell & preface by Kurtz—began being offered to (& accepted by) various Councillors. In a matter of days, Council interest (e.g., Randi, quoted above, p. 60) in a reining-in of the KZ&A disaster evaporated. A week before the CSICOP 1978/12/6 press conference, Kurtz phoned the Council, warning that I might create a "schism" by dissenting there, thus some way of getting me off the Council must be found. (This was the 1st proposal of my ejection.) On Dec. 5, Abell & Zelen ducked a scheduled private showdown before the Council on the G matter. Instead, I was ordered not to speak to an inquiring reporter and was threatened with ejection from the Council.

The next month (1979 January), I circulated memos to the Fellows describing the growing scandal and Kurtz' veriphobia in appropriately blunt terms.

Late in the Summer, a huge package of papers (*45 pp.* in *SI* v. 4, #2) on the Mars Effect was suddenly refereed (without my being informed about it, though I was: performer of the test, the only astronomer on the Council or the Editorial Brd., and a member of the G subcommittee)—so rapidly that 2 of 5 of the referee reports were taken *by phone.* Despite a published Abell promise (*Hum.* 1976 Sept./Oct.) of neutral refereeing (also urged by Hyman & myself), all refs were CSICOPs.

Aware that most of the Councillors *and Kurtz & Abell* knew[3] the Control Test had boomeringue-piekilled KZ&A, I adamantly protested KZ&A's continuing (public) pretense that nothing had gone amiss. To Council 1979/11/6: "This is *deliberate* sham." In the same memo, I objected to the deletions from my short report (6 pp. vs. KZ&A's 23 pp.), as well as the alteration of an accompanying note (saying the deleted parts were available from my address) into a version that left readers believing that no deletions had occurred.

The only immediate response was a warning (Nov. 9) that it would henceforth be difficult for me to publish in *SI.*

The ultimate reaction was a secret, unannounced[4] "election" 1979/12/15, at which I (only) was unanimously ejected from the Council and was replaced (after a cosmetic delay) by Abell—which destroyed all hope that CSICOP could ever dissociate itself from sTARBABY. (I had previously, *SI* v. 3, #2, p. 73, argued[5] that since the Control Test's expert[6] promoters, Zelen & Abell, were not Councillors while I, a critic, was and because *SI* was pretty clean on it, the Control Test might be seen as not completely CSICOP's responsibility. My replacement on the Council by Abell, along with dozens of *SI* pages on G-testing, soon destroyed these arguments.)

The letter (1979/12/21, Randi) informing me of excommunication suggested I use my *SI* Associate Editorship and write lots for *SI.* No offenses justifying ejection were cited. The official minutes of the Dec. 15 meeting (dated Jan. 8, over 3 weeks later) do not mention my departure at all.

My position on the Council was mentioned in the pre-ejection galleys of my G report (*SI* v. 4, #2; see also v. 3, #2, p. 73). Since that was now obsolete, I felt it apt to mention instead my *unanimous* ejection from the post—but this was refused as "inappropriate."

In the spring, I was kicked off the Editorial Brd. and in October was booted off the full Committee (Fellows). (Since Nov. 9, my access to *SI* had experienced 3 violently opposite extrema—as threat and bribe alternated.) Again, no offenses were specified. Indeed, in both these cases, I was not even informed of the event—just found my name missing from the appropriate list on the covers of *SI*. I *still* have received no official written reasons for my ejection for *any* of the 3 posts I once held on CSICOP.

When Kurtz was asked (1980/12/12) about my removal from the Fellows, he repeatedly claimed he had balloted the Council on this.* Yet Gardner, Hyman, and Abell state that there was no ballot and no Councillor has responded affirmatively to my 1981/1/26 request that they support Kurtz' version in writing—though some had been willing to support it verbally 1980/12/12.

In a letter of 1981/3/19, I asked Abell: "if Kurtz lied about how the ejection of a Fellow was carried out, should he be dismissed as Chairman? If not, then what crimes *would* be too much for you to stomach? And: how would the Council get rid of Kurtz, when he alone possesses the *Skeptical Inq.* mailing list?† Do you see what I [mean] re the Council being just a formality with no substance at bottom?"

At this, Abell broke off a frequent correspondence between us of over a month. I had asked Martin Gardner that same question 1980/11/30 and he replied that since Kurtz owns the *SI* subscription list, then procedural rules are "crap."

Such "realism" must be essential to worldly survival, since some Councillors have alleged (one with Amazing high-velocity libelosity) that my conflict with CSICOP (i.e., willingness to encounter abuse and ejection for principle) evidences self-destructive mental illness. Coming from a Committee that has taken 6 years to commit neoastrological hara-kiri, that's genuinely funny. But I leave teleological shrinkoanalysis of unconscious motives to CSICOP, a Committee that is supposed to be attacking pseudo-science, not engaging in it.

My position is that, by its unanimous vote of 1979/12/15, the entire Council opted for coverup and for binding a scientific-disaster albatross forever to their names. *CSI*COP cannot retain credibility under such leadership, since its investigations are worthless if secrecy, welching, coverup (including ejecting the correct scientist and elevating the one who screwed up!) will follow anytime the opposition wins.

Since one doesn't stop crime by simply making the thief put-it-back, I suggest that:

a) The *SI* subscription list be placed in the hands of the Fellows and the ownership of CSICOP be removed from the control of Kurtz (especially considering the fact he was (1978/10) released as *Humanist* Editor for "fiscal unaccountability"‡).[7]

b) All 10 (past & current) Councillors consider themselves permanently retired, while (in an unofficial capacity) making available[8] their talents, verve, and experience to a fresh, untainted Council, nominated by the Fellows.

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*The Council *was* balloted, and the seven ballots that were returned are on file in the SKEPTICAL INQUIRER office.—ED.

†This is false. CSICOP is a nonprofit scientific organization. As with all such groups, its assets, including its subscription list, are the property of the organization and not of any individual.—ED.

‡This statement is false. In a personal letter dated October 16, 1981, to *SI* editor Kendrick Frazier, Lyle L. Simpson, president of the American Humanist Association, stated "I am

c) The Fellows cease sticking their figureheads in the sand and *start keeping a sharp eye on Committee affairs*—regardless of who may be running things day-to-day.

On 1979/6/26, Randi proposed that *"if"* (his emph.) sTARBABY was a mistake, then it should be branded a non-CSICOP experiment. (Question: what, then, *is* a CSICOP experiment?—has a "Committee for . . . Scientific Investigation . . ." got none to show for 6 years of loud existence?) Reminds one of the Church trying to unload the Galileo incident and still claim Infallibility.

In a letter of 1981/3/14, Abell stated (while intimating a possible KZ&A libel suit, a bluff I am calling in *Fate* & here): "the study of the Mars effect was *not a CSICOP project"* (emph. added). (Just a coincidence that it was initiated and promoted by CSICOP's 2 most prominent spokesmen and took up scores of pages of the Committee's magazine!) Yet in a 1978/10/28 letter, Abell spoke of "the subcommittee that agreed to look into the Mars effect *on behalf of the Committee.*" (See also *SI* v. 5, #1, pp. 85-86; and *Hum.* 1977 Nov./Dec. p. 29, quoted p. 60)

This same 1978/10/28 Abell letter said he'd wondered aloud 10/27 to Kurtz "why he, Marvin [Zelen], and I—*rather than you*—should write the report" (emph. added) of the U.S. test, since Abell knew he had done nothing himself on it and that I had done the whole experiment (except the sampling—which we both agree CSICOP should have had no part in). Yet now in the 1981/3/14 letter, he adopts the falsehood of *SI* v. 4, #4, p. 58 (where my name was not even mentioned!), and v. 5, #1, p. 85 (Congrats to KZ&A's "fortitude"); Abell "the study was . . . *conducted by* [KZ&A], with *assistance* (in the computations) by Dennis Rawlins. (In fact, Rawlins did virtually all the calculations, but was *not involved in the design* of the test, nor in the gathering of the data, so is not responsible for its merits or defects.)" (emph. added)

Yet, as is clear from the 1978/10/28 letter, Abell knows that KZ&A "conducted" nothing scientific at all. Abell's sole involvement before the 1978/9/18 completion of the test was his appearance at a 1977 July meeting with Kurtz, Zelen, and Gauquelin, but "quite honestly, I do not recall what, if anything, was firmly agreed to at that meeting" (1981/6/12).

The "design" of the U.S. test was:

a) compute all Mars sector-positions (to 1′ accuracy automatically from the raw birthdata;

b) likewise compute all other planets' positions, for context;

c) calculate a chance-expectation curve for the U.S. sample;

d) eschewing the Zelen-test approach, simply compare the athletes' data to the expectation curve.

All 4 of these "design" phases and decisions were performed solely by myself.

Anyone familiar with my serious researches will readily understand that I do not insist on this point because I regard the G project as a major one in my career. But consistent misreportage here represents yet another triumph of politics over accuracy. Just how wild things have gotten may be illustrated by considering Abell's (& CSICOP's) two *simultaneous* 1981 insistences (even aside from the above-quoted 1978 contradictions of both):

a) we top CSICOPs (not Rawlins) "conducted" the experiment; however,

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writing to place in written form a denial of the statement of Dennis Rawlins that Dr. Paul Kurtz was released as Editor of *The Humanist* magazine for 'fiscal unaccountability.' That is simply not true."—ED.

b) it wasn't a CSICOP experiment.

Hugging and rejecting sTARBABY at the same time! Not even Uncle Remus ever heard of that act.

In case the *SI* Editor honors his telegrammed promise to print the foregoing, then (if the past record is indicative) CSICOP will attempt anti-crimethought commentary sooner or later. (If explanations are to be promised for later, readers are urged to phone the principals now for alibis and/or specific denials. Delay is an essential ingredient for Fellows' continued inaction, which is the outcome some parties are still wishing for.) Before believing any of this, I trust that readers will check it out. I can be reached at 2636 Grand Ave., #212, San Diego, CA 92109, telephone 714-274-2523.

And I urge all *SI* subscribers to read the full 32-page account ("sTARBABY") in the October *Fate* (reprints available: *Fate*, 500 Hyacinth Place, Highland Park, IL 60035).

Much more of the story remains to be told, and I hope to do that at some future time, at appropriate length.

—*Dennis Rawlins*

1981/9/6

Notes

1. Since I do not know whether *SI* has ever published a list of its own ruling Councillors, I will do so here: Abell, Frazier, Gardner, Hyman, Klass, Kurtzimmermanisbet, and Randi.

2. In response to Jerome's letter re Jerome's charge of "censorship," see "sTARBABY" (or, better, the original documents). Jerome's supposition that 2 sector-counts' deviations (in the U.S. test) exceed 95% significance ignores the true expectation curve (which Jerome ought to compute some year); using that, only 1 sector exceeds 95% significance, the expected number. And these sectors (in reverse) are *not* Placidus (astrological) houses; they are mundane houses, which I once correctly described (in a 1975/11/15 ms, shown to Jerome and Abell) as *custom*-Placidus. Jerome (*Hum.* 1976 March/Apr., p. 52) and Abell (*Hum.* 1976 Sept./Oct., p. 40) then picked up on this notion but misreported it. As for Jerome's charge of "sophomoric" post-hoc bias by G—Jerome chose not to mention that this charge applies at least as strongly to KZ&A. But I was gratified to learn in this incomparable letter that CSICOP Fellow Jerome has reinvented the laws of statistics! With enemies like CSICOP, the occultists don't need friends.

3. As I knew from private conversations, Kurtz (1978/11/19) and Abell (1978/12/6) had each tried to blame the other two authors for the G mess—Abell claiming that he hadn't even read the KZ&"A" 1977 report before publication. (He later, 1980/12/12, said he *didn't remember* whether he had—not the sort of incident you or I would easily forget.)

4. That is illegal according to every established code of parliamentary procedure.

5. This final attempt to get CSICOP off the G hook was printed by Frazier (to his credit) unbeknownst to other Concillors until publication.

6. At first I had hoped to separate Chairman Kurtz from the disaster on an Invincible-Innocence plea. After all, it is common knowledge on the Council that Kurtz does not know even freshman astronomy or statistics—though this has not prevented him from listing himself as senior author of dozens of *SI* pages of technical Mars Effect studies requiring expert knowledge in those areas.

7. See the statement of the Board of Directors of the American Humanist Association (sent CSICOP Council at my request 1978/11/29) and Exhibit E of the 1979/2/23 A.H.A. Treasurer's Report.

8. This would prevent a lot of waste; & it seems to be the role CSICOP envisioned for me. ●

Statement by CSICOP Executive Council in Response to Rawlins

"Remus Extremus," by Dennis Rawlins, does not properly belong in the SKEPTICAL INQUIRER. It is published here because of an offer made to Rawlins by the editor to establish that CSICOP has nothing to hide and that there has been no "cover-up" at all of the matter under discussion. Granted, there may have been problems with the Zelen test. In science, such difficulties are not only common they are expected.

The Rawlins commentary, which is printed as it was presented for publication, contains many demonstrably false and defamatory claims. For example, the financial records of CSICOP, a nonprofit organization, are regularly audited by a CPA and are open to inspection by Fellows, Scientific Consultants, and other qualified persons. The mailing list is the property of CSICOP. It is open to inspection and is audited annually by postal authorities—and it has been examined by interested persons.

Rawlins was *not* removed from the Council for the reasons he claims. His reelection to the Executive Council was unanimously rejected because he became very difficult to work with and behaved in such a manner that we felt he could not properly represent CSICOP. He was dropped as a Fellow of the Committee by a mail ballot of the Councillors: the vote was six for explusion, one against, and two not voting. He was removed from the Editorial Board of the SKEPTICAL INQUIRER by the editor, who had received a letter of resignation from Rawlins with a demand that the letter be published. This letter, in the editor's opinion, was totally inappropriate for publication.

The "censoring" that Rawlins claims took place consisted of quite normal *editing* procedures by the editor, to which all SKEPTICAL INQUIRER contributions are subject. As with Rawlins's other assertions and innuendoes, this claim is based upon half-truth and distortion.

Readers who wish to examine further CSICOP's response to Rawlins's accusations are encouraged to send three dollars (to cover postage and handling) to the address below for a detailed account of the matter, including "CRYBABY," a paper by Philip J. Klass, which *Fate* has refused to publish, and "The Status of the 'Mars Effect,' " by George Abell, Paul Kurtz, and Marvin Zelen.

George Abell
Kendrick Frazier
Martin Gardner
Ray Hyman
Philip J. Klass
Paul Kurtz
Lee Nisbet
James Randi
Marvin Zimmerman

EXECUTIVE COUNCIL
CSICOP
1203 Kensington Avenue
Buffalo, New York 14215

George Abell and Paul Kurtz Respond to Rawlins

Michel Gauquelin has claimed that Mars appears in certain "key sectors" of the sky at the time of birth of highly successful sports champions more often (22 percent of the time) than would be expected by chance (17 percent). A skeptical Belgian Committee (*Comité Para*) investigated that alleged phenomenon, now known as the "Mars effect" but failed to endorse its reality because the calculation of the expected 17 percent of athletes born with Mars in a key sector rests on the assumption that the distribution of births throughout the day is independent of place and date. We noted that the birth distribution could also depend on other environmental effects—perhaps ethnic or cultural. Zelen thus proposed a test that is independent of any such assumptions, namely, to compare the Mars sectors of a randomly selected subset of Gauquelin's 2,088 sports champions directly with those for all other individuals born about the same date and in the same towns. Our paper describing the results of this test on a subsample of 303 athletes is the crux of Dennis Rawlins charge of a "cover-up."

Although Rawlins does not explain what the alleged "cover-up" was in his remarks (above), as we understand him, it is that we found that indeed 17 percent of nonathletes were born with Mars in key sectors—as Gauquelin had predicted. If the entire sample of 2,088 European athletes was unbiased, the difference between 22 percent for athletes and 17 percent for others would seem to be statistically significant, although the significance is, of course, far less for the subsample of 303. We did not specifically make this point in our paper; it was not a conscious omission. Indeed, the point was made very clearly in Gauquelin's companion paper published in the same issue of *The Humanist* (November/December 1977). Since Kurtz, one of the authors of our paper, was then editor of *The Humanist*, his publication of Gauquelin's article at the same time clearly shows that there was no effort to deny the airing of differing viewpoints. Actually, the bulk of our paper called attention to what appeared to be surprising irregularities in the data sample, although we did not and have not accused Gauquelin of intentional cheating. Rather, we saw the need for an attempt at independent replication with a sample from the United States, a study eventually carried out and published in the SKEPTICAL INQUIRER.

We regret not making clearer exactly what the Zelen test did and did not (and *could* not) demonstrate. Also, Abell and Zelen made careless advance statements about the "definitive" nature of the test. All of our data and analyses, however, have been presented fully and honestly and (to the best of our knowledge) accurately, for all to read and interpret. Accordingly, Dennis Rawlins's claim that there was a "cover-up" is patently false.

—*George Abell and Paul Kurtz*

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From Our Readers

The letters column is a forum for views on matters raised in previous issues. Letters are welcome and are more likely to be published if they are typed and double-spaced. Some may have to be edited.

Conceptual Critique of ESP

Sidney Gendin's "ESP: A Conceptual Analysis" in the Summer 1981 issue raises a tantalizing prospect: that "target-guessing experiments . . . simply don't do anything to establish ESP; and this . . . is a matter of logic and not one of mere empirical deficiency." Since target-guessing is certainly the bulwark of ESP research, Gendin's claim, if true, would put a serious crimp in one of the main foundation blocks of parapsychology; it might even necessitate a reduction in size for the SKEPTICAL INQUIRER as its subject matter disappears.

Unfortunately, the case against ESP cannot be closed on the basis of Gendin's article, as I shall attempt to demonstrate using counterexamples drawn from the real world or that could readily be imagined in the real world. Let me start by laying out my tools.

First, there's a history of using analogs to illustrate logical extensions in the branch of mathematics called topology. For example, topologists like to speculate about the nature of a fourth spatial dimension, in addition to the dimensions of height, width, and depth with which we are all familiar. But the fourth dimension cannot be perceived. How then to describe it? Well, we *can* see the existing three dimensions, and it's possible to imagine a denizen of a two-dimensional world looking at a three-dimensional artifact (or the projection of a three-dimensional artifact onto a two-dimensional surface). By logical extension, it is possible to determine what the projection of a four-dimensional "hypercube" into our three-dimensional universe would look like.

Second, I introduce what I will call the Wellsian Paradigm; the name is taken from "The Country of the Blind," a 1904 short story by H.G. Wells. Wells was inspired to write this story by the old proverb, "In the country of the blind, the one-eyed man is king." The irony of this imaginary land, as depicted by Wells, was that even a two-eyed person was superfluous, because the blind inhabitants were perfectly adjusted to life in their isolated valley and couldn't understand what the protagonist was talking about when he referred to "seeing" things. The Wellsian Paradigm is as follows. One percent of the people born in the country of the blind do in fact have a limited form of vision—the ability to vaguely distinguish light and dark shapes. And an additional one percent of the original one percent can actually see fairly well in color. We will then proceed to use this four-sense world from our perspective as five-sensers to try to imagine how we, as five-sensers, would react to people who claimed a sixth sense. This is akin to trying to understand the four-dimensional world by extrapolating upward from two to three dimensions.

Now let's turn to Gendin's article. In part 1, he points out that target-guessing may show statistical deviations from what would be expected from random chance but that statistical deviations alone are not proof of the existence of ESP. There may be other explanations for the deviations. Quite true, and I have no quarrel here. In part 2, he extends this line of reasoning to suggest that 100 percent accuracy at guessing coin tosses would be cause for belief in "an extraordinary ability," but that a 51 percent success rate could be more easily explained by a simple run of good luck, which we know from experience happens often enough to be unexceptional.

It is when Gendin arrives at part 3 that we begin to take separate paths. Here he asks how ESP is to be confirmed. "There are reports of people who 'perceive' colors through sensations in their fingertips . . . How, if at all, do they confirm their claims? Presumably by looking and seeing that their beliefs are correct. It is never the other way around." He starts with this denigration of ESP as a method of knowing things and goes on to state that "a person cannot be said *to know* what cards are coming up if he goes wrong more often than he goes right—which is the case for anyone who averages less than 13 hits out of 25 [and even] 'good subjects' generally go wrong far more often than they go right. Hence ESP cannot be regarded as a form of perception."

Using the Wellsian Paradigm, imagine that researchers in the country of the blind are trying to figure out if there's anything to this "quiet hearing" business. They test 100 people. Ninety-nine of these can't pass the test any more than would be predicted by random chance. The other one—who has faulty vision but vision nonetheless—passes the test with a score above chance, but still is far from perfect. And the errors take the form of both false positives and false negatives. For example, let us say that the test selected is detection of a bird flying by. The subject is earmuffed to prevent detection of the wingbeats. Part of the time the subject will see the bird and correctly report it. Part of the time he/she will see a bird that is too far away for the researchers to hear and it will be reported as a supposedly false positive result. Part of the time the subject will not be able to see the bird (perhaps it has been released behind his/her head) and will report a false negative.

Now two things can be gleaned from this analogy. The first is that we don't have the vaguest idea how much of the population (if any) is possessed of ESP, and most people can be presumed not to have it. Second, we don't know how well the people who *do* have ESP (if any) are capable of using it. But ESP in our world is no less likely than vision in the country of the blind on the basis of Gendin's contentions. To say that the blind researchers must appeal to hearing (or touch or smell) as an ultimate confirmation of vision only recognizes that they have a more reliable (generally) method of sensing things. To point out that the partially sighted subject has a less-than-perfect success rate still does not invalidate (as it cannot) the hypothesis that vision exists . . .

Gendin says that psychokinesis (PK) is usually explained as being caused by nothing more than wishing. He suggests that advocates of PK should adduce some mechanism for why wishing should make it so. I again have no quarrel with his conclusion, other than to think it's just a bit premature. First, I believe, there should be some evidence of something to explain before it becomes necessary to look for the explanation.

Indeed, that's the problem with a lot of claims made for the paranormal. Explanations abound, but evidence is pitifully minute. Researchers into the paranormal should therefore, I believe, concentrate first of all on demonstrating that unusual (normally inexplicable)

phenomena *do* occur; only when there is evidence to support this contention should they pass on to the secondary question of providing explanations and discovering mechanisms.

In the final part of his article, Gendin contends in general that ESP researchers are hardly likely to display any solid evidence no matter how long they try because they are unwilling or unable to do their demonstrations under controlled conditions. He points out that "it is noteworthy that the most impressive nonexperimental anecdotes are unrelated to 'favorable conditions.'" Perhaps. But does that mean we should follow his advice that "*any* experiment is unsatisfactory if it is agreed to beforehand by the subject"? Aside from the obvious physical impossibility of getting an experiment done *without* the cooperation of the subject, I believe Gendin has overstated his case. Consider the Wellsian Paradigm again. Our blind researchers are still trying to find out whether their sighted subject has ESP (meaning, in their case, a "fifth sense"). They have the subject in a room where they are dropping pebbles at irregular intervals. When the pebble hits the floor, all in the room know it has been dropped. The subject claims to be able to know it will hit the floor while it's still in the air. (That's because he can see it falling.) In an effort to generate controlled conditions, the researchers seal the room tightly to prevent any outside influences from affecting the experiment. Of course in the country of the blind a sealed room has no windows, ergo no light, ergo no vision for the subject. Since the subject is probably not quite sure why she or he is capable of detecting things that others are not (the classic case of trying to explain "red" to a blind person), the only explanation the subject can come up with for the inevitable failure is that "conditions aren't right." The subject is familiar with the situation; conditions are usually right about half the time and wrong about half the time (which we, as five-sensers, understand to correspond to day and night). Does this prove that the subject doesn't have ESP under controlled conditions? No, merely that the ESP isn't being allowed to function.

The scientific method would suggest that we find ESP wherever we can—including under what a subject would call favorable conditions—and try to find out what's different about those circumstances than in other cases. Naturally, as Gendin suggests, the factor most likely to be different is fraud, but it's unclear that there are no other possibilities.

In summary, Gendin argues well from the viewpoint of a skeptic. But I believe he gives too little attention to the viewpoint of the inquirer. I hope my discussion can contribute somewhat to the philosophical analysis of the paranormal that he has launched.

Richard S. Russell
Madison, Wis.

Sidney Gendin tries to prove too much in his philosophical attack on ESP. Here are two examples.

He argues that ESP cannot be regarded as a form of perception because the subject is wrong too often to justify the epithet. But imagine a binary plain-language message, expressed for example in the international teleprinter code, that is repeated many times and then enciphered into a sequence of cipher binary digits, 0's and 1's. If there were a percipient who could guess the individual cipher digits slightly more than 50 percent of the time, then he could recover the original message with almost no inaccuracy (Good 1971). Would this be logically very different from looking at each square inch of a face and putting together all the pieces of information so as to recognize the face with practical certainty? The main logical difference would be that faces are usually recognized quickly, whereas the enciphering process just described

would be slow. I am skeptical about the possibility of ESP, but at least the name "extrasensory perception" is hardly a misnomer.

The second example is Gendin's argument against the possibility of psychokinesis. He argues in effect that putting sugar in one's coffee is a priori just as likely to influence a die to come up six as would wishing for a six. Although this argument is entertaining, it is rather weak. When I will my arm to move, it moves, so there are some circumstances where a wish is father to the event.

Also, there are many people who believe, rightly or wrongly, that their prayers are sometimes answered. J. B. S. Haldane once suggested that an experiment should be done to see if prayer was efficacious. His proposal was that half the people in a hospital should be selected at random and prayed for, to see if there were a statistically significant result. He may have had his tongue in his cheek when he made this suggestion, but at least he was more open-minded then Gendin. I suspect that ESP and most religions are based on fraud and self-deception, but this cannot be proved by logic alone. In arguing against ESP let's not also use self-deception.

I. J. Good
University Distinguished Professor of Statistics
Virginia Polytech and State University
Blacksburg, Va.

Reference

Good, I. J. 1971. "A Proposed ESP Experiment, Using Encipherment," *para-Science I*, no. 3 (November): 1-2.

Many people's beliefs in paranormal phenomena are a response to a perceived dogmatism about "establishment" science. Hence any skeptical inquirer who wishes to woo someone away from belief in, say, ESP must do his utmost to avoid even the appearance of dogmatism regardless of how smug he may be about his own arguments against ESP. To draw on Sidney Gendin's own example, mathematicians who have proved that the trisection of an angle with compass and straightedge is impossible only encourage the dogmatic appearance of "establishment" science by refusing to answer claims of others that it has been done. Just so, Gendin rejects ESP because there has been no "decisive experiment" or because no coin-guesser scores 100 percent. Anyone following the current scientific debates over the progress of evolution (gradual or stepwise) and the nature of the universe (open or closed) knows that decisive experiments are rare. And, if it is assumed for the sake of argument that ESP exists, why should it not appear to us in the way that the talents of a nearsighted one-eyed man in the valley of the blind might appear to them?

The most effective arguments against ESP—or against any claim—is to meet it on its own ground. First the fact must be established: Is there indeed a coin-guesser with a 52 percent success rate? Then the reason for the fact must be addressed: Is there a way to explain the result without calling on ESP? Of course if a mundane explanation is found, most fans of ESP will go right on believing in ESP. But perhaps the real attraction of science only emerges in those all too rarely publicized instances where there is no immediate answer. In such an instance, the believer in ESP becomes the dogmatist, while science is revealed as the intellectual challenge that it is. A dogmatic skeptic such as Gendin cannot convey the challenge of science but, rather, strengthens its unfortunate dogmatic image.

Peter Sobol
Bloomington, Ind.

"ESP: A Conceptual Analysis," demonstrates once again to what strange

lengths people will go to resist an implication that threatens to upset their preconceptions about their world. The question at issue with any psi experiment (whether it involves ESP or PK) is whether the mere wanting to achieve a certain state of affairs can influence the actual outcome of the experiment in the absence of any known physical mediation. To dismiss the question, as Gendin does, on the grounds that we know nothing about the modus operandi of ESP or that it behaves quite differently from ordinary perception is surely the sheerest dogmatism. After all, we still do not understand the modus operandi of such a familiar and basic phenomenon as memory and we may well have to wait another thousand years before we gain any clear picture of where psi fits into the natural scheme of things. Of course any given experiment is always open to criticism and to the possibility of a normal counterexplanation, but if Gendin is to be believed then all such experiments of whatever quality are futile since the very concepts of ESP and PK are absurd. I find it sad that a philosopher, whose calling is the pursuit of truth and reason, should here join forces with the obscurantists in seeking to impede the advance of knowledge.

John Beloff
Department of Psychology
University of Edinburgh
Edinburgh, Scotland

Sidney Gendin responds:

Professor Good indiscriminately writes of willing and wishing as if they were the same. It is depressing to learn he is ignorant of the literature that differentiates the two. Even if willing one's arm to move does cause it to move, that is no argument that wishing it would move could cause it to move. Furthermore, it is far from obvious that willing is a kind of cause. Professor Good's sophomoric example is met with every semester by philosophers in their introductory courses and nothing is gained by the fact that it is now invoked by a distinguished statistician. That one's arm moves because one wills it to move should not be assumed but ought to be the conclusion of an argument that at least attempts to deal with the difficulties philosophers have put in the way of that simplistic model. For a start, I suggest that Professor Good read A. I. Melden's Free Action.

Good thinks that some people believe prayers are sometimes answered and suggests an experiment to test the hypothesis. This, he holds, would be more open-minded than ruling out the possibility a priori. I fear Good has utterly failed to grasp my argument, particularly in section I. I don't doubt that people who pray to be cured may be cured more often than those who don't pray and that the difference may be statistically significant. But, to argue analogously to my section I argument, unless we already have some independent evidence for the existence of God we have no good reason to attribute the good fortune of those who pray to the supposition that God is answering their prayers. There are any number of alternative hypotheses. I may be wrong, but Professor Good merely ignores what I wrote rather than criticizes.

Mr. Sobol thinks that mathematicians encourage the appearance of dogmatism by refusing to answer the claims of others that they have proofs for what the mathematicians know to be impossible. Perhaps Mr. Sobol is just unfamiliar with the facts surrounding this particular case. Does he also think they should examine the claim that there are certain even numbers that are not divisible by 2? One must, after all, get on with one's work, and if there are people who take the refusal to examine the alleged proof as an instance of dogmatism then so much the worse for them.

Mr. Sobol says I reject ESP

because I find no "decisive experiment" establishing it. Nothing I wrote suggests that misinterpretation. I argued that the experiments so far produced don't count as evidence, and that is quite different from claiming they are insufficiently decisive. I believe he has misread my article.

I fear there is considerable mumbo-jumbo in Mr. Russell's talk of second, third, and fourth dimensions. The fault is not entirely his, since the term 'dimension' is much abused by mathematicians. Unfortunately, I need another paper to demonstrate this claim. Suppose, however, I am wrong. Mr. Russell cannot get much mileage from that fact. At most he presents an analogy, to wit: since we may extrapolate a belief in four dimensions from our direct experience of three, why may we not extrapolate a belief in ESP from our direct experience of the five senses? But there is no argument whatsoever, either good or bad, that if we concede the legitimacy of the first extrapolation we are bound to concede the legitimacy of the second.

My final section was a warning against the possibility of fraud, and Russell seems to grasp that fact. Hence his "criticism" of that final section is nothing but a long non sequitur.

I believe there is one point only on which my critics are agreed and that concerns my claim that ESP, even if it does exist, ought not to be regarded as a form of perception. The substance of Messrs. Sobol's and Russell's point about nearsighted men in the valley of the blind is that you don't have to be good at seeing in order to be said to see. I believe the labored example of Professor Good aims at the same conclusion. Presumably, all three hold that you don't have to be good at ESP to be said to perceive extrasensorily. Now, no doubt it is good to be reminded that there is a sense of 'perceive' for which it is in order to say that a person may perceive although he is a nearsighted man. Certainly this doesn't put anything I said into jeopardy. I argued that seeing is not merely a source of belief but a way of validating beliefs. I grant that one doesn't have to be good at ESP in order to be said to have it. But having it, so I argued, is not necessarily the same as perceiving. My argument consisted of connecting my remarks about the validation of beliefs to some remarks about the 'Justified True Belief' thesis. None of my critics finds fault with the details of the argument.

In Professor Beloff's "criticisms," I am unable to locate any arguments, good or bad. He claims I have certain preconceptions that I feel are threatened by ESP. He does not know me well enough to make this claim. Beloff does not try to say what is wrong with my arguments. Rather, he merely summarizes one or two of my conclusions and dogmatically opposes them. Moreover, he even gets the conclusions wrong. I did not dismiss ESP because its modus operandi is different from that of ordinary perception. I said that, since ESP does not share the characteristic features that define perception, then, whatever it is, it cannot be regarded as a form of perception. Perhaps I am wrong, but wouldn't it have been nice had Beloff explained why?

I find it sad that a psychologist, whose calling is also the pursuit of truth and reason, accuses me of dogmatism while evincing it in the very course of his accusation.

Lastly, my point about 'perception' being a misnomer was not substantive; rather, it was, I hope, a very interesting verbal point. I take heart in the fact that each critic seems to accept parts of my paper the others do not and, hence, with the exception of the verbal point, they jointly may be said to accept all of it.

American Inscriptions

Since epigraphy is a branch of paleolinguistics, one might expect that the objectivity required in assessing my work would be based on the published

papers of linguists, in the standard linguistics journals devoted to the European and North African languages that appear in the American inscriptions. Your article by Marshall McKusick (*SI*, Spring 1981) discloses no knowledge of this literature. Instead of unargued fulminations, it would be more to the point if, for example, the Basque inscriptions of the Susquehanna valley, of which I published decipherments in 1974, were now to be assessed in the light of what leading Basque scholars in Spain are saying. The current (1980) volume of the standard *Gran Enciclopedia Vasca* (Bilbao and Madrid) devotes several chapters to a detailed, letter-by-letter and word-by-word analysis of these inscriptions, and the result is about 95 percent in agreement with my conclusions; and furthermore the estimated date (ca' 900 B.C.) is confirmed. The Basque scholars sought my assistance in deciphering pre-Roman inscriptions in an unknown script, preserved in the Museum of San Telmo; and when two years ago I informed them that the "unknown script" is in fact identical with the so-called Cree syllabary, and provided them with a phonetic rendering that can easily be understood as Old Basque, confirmation was not long delayed. The next volume of the *G.E.V.* will contain a comparative vocabulary of Cree and Basque, prepared by the leading Basque lexicographer, Imanol Agire.

Similarly, the hundreds of Libyan-Arabic inscriptions of North Africa and North America have been reviewed by North African scholars, again with results confirming my work; and Celtic language scholars have discussed in detail, and largely confirmed, the Ogam inscriptions.

The forthcoming (vol. 9) of ESOP is scheduled to carry a selection of reprints of articles and reviews written about my work, and the contrast between the blanket condemnations by archaeologists on the one hand, and the detailed analyses by linguists, is most striking. However, not all archaeologists say the same thing. Already some Irish and English archaeologists have admitted that the New England dolmens and megalithic chambers are indeed just that, and one of them has called for a major reevaluation of American prehistory.

Barry Fell
The Epigraphic Society
San Diego, Calif.

Marshall McKusick replies:

Col. Muammar el-Qaddafi, ruler of Libya, recently announced that his government was carrying the plight of the American Indian to the United Nations; he added that his involvement stemmed from the Indians' Libyan ancestry. Such a statement is a tribute to Prof. Fell's powers of persuasion and illustrates that his tales of antiquity are widely accepted among those who seek their ethnic heritage in ancient America. However, are any of these tales true?

After reading Fell's rejoinder, I find no reason to modify any statement I made in my article. The statements I made are not one man's opinion on a controversial topic but express the views of professional scholars trained in North American prehistory and native languages. Readers are referred to published lists of negative reports that accompanied my article. Professional archaeologists reject Fell's theories because the inscriptions are variously known as forgeries, recent markings and graffiti, misidentified native American art, or, in some cases, natural geological features.

Alleged European-Mediterranean influences in American sites have similarly failed to convince specialists. Fell does not respond to the specific objections raised by the Celtic specialist Nicolaisen about Amerindians' Vermont "Celtic" place-names, avoids Ross and Reynold's identifications of "plow-marked" rocks said by Fell to be

Irish-Ogham letters, and ignores Neudorfer's excavations in Vermont and McKusick on the Davenport affair. Those who disagree with Fell are ignored in his popularizations; he refuses to cite their scholarly studies and thus keeps his readers in the dark about their conclusions.

The reader is now given the Basque case. Were the "Susquehanna-Cree" actually Basque speakers or vice versa? We are told new revelations will appear, but the case has not yet been evaluated by specialists in native American languages. Libyan-American is not a correct interpretation, and a fuller explanation needs to be published outlining scholarly objections. Canadian-Egyptian, Iowan-Egyptian, Long Island-Egyptian, and all the rest are linguistic and archaeological fantasies that have deceived some of the readers of Fell's book. In the words of Glyn Daniel, distinguished Cambridge archaeologist, Barry Fell is "a deluded scholar" who misinforms others about American prehistory.

About the "Mars Effect"

"The Contradictions in Gauquelin's Research: Rejoinder by Kurtz, Zelen, and Abell," published in the Summer 1980 issue of the SKEPTICAL INQUIRER (pp. 62-68), is so full of inaccuracies that several pages of this journal would not suffice to correct them. Let me just inform the reader about the gross and deliberate misstatement it contains.

Concerning their study on U.S. athletes, Kurtz, Zelen, and Abell write: "In a meeting between Michel Gauquelin and Kurtz, Zelen, and Abell in July 1977, *before* [emphasis in original] we began our research, Gauquelin agreed upon the use of the *Lincoln Library of Sports Champions, Who's Who in Basketball,* and *Who's Who in Football,* although he now objects to the use of the latter two volumes. We later added *Who's Who in Track and Field* and *Who's Who in Boxing,* with his agreement." This is definitely untrue. My opinion *was not* asked concerning the choice of the volumes used. I *was not* informed of the experiment before it was done. Dennis Rawlins' recent story of the Mars effect ("sTARBABY," *Fate,* October 1981) clearly shows that the gathering of the data was done by one of the authors, Paul Kurtz. Kurtz sent to Rawlins the first set of data *secretly,* saying that he wished a *private advanced look* at how the Mars computation was going to come out! And let Kurtz produce copies of letters in which he kept me informed regarding the U.S. sample's selection *before* he knew the results of Rawlins' calculations: Kurtz cannot produce any copy of these letters for the simple reason they have never been written. Needless to say, this is not the proper way to run a test. A research protocol should be carefully set up in advance and written down by both parties.

That is why, by my letter of July 27, 1980, I made a clear proposal to Paul Kurtz: "The title of your rejoinder published in the Summer issue of the SKEPTICAL INQUIRER emphasizes 'the contradictions in Gauquelin's research' and, more precisely, questions my use of the *Dictionnaire des Sports* (1973). Instead of answering each point of your rejoinder, I think more interesting to suggest to you the following procedure since you have a copy of the *Dictionnaire des Sports* with you." And I detailed the steps of the experiment. (1) Kurtz, Zelen, and Abell establish the list of *all the athletes* mentioned in this volume (3,000 names). (2) After our mutual agreement on this list of names, indication will be given concerning the place, date, and time of birth of the athletes listed. (3) After our mutual agreement on point (2), the position of Mars at the birth of these athletes will be calculated. The actual distribution of Mars will be then compared to a theoretical distribution estimated by George Abell and his collaborator Albert Lee (a description of their theoretical estimation was given to

Gauquelin in a letter of May 3, 1980, with a copy to Kurtz). (4) After our mutual agreement on point (3), a statistical analysis will be performed comparing the frequencies of athletes born with Mars in "key sectors" with the frequencies of athletes born with Mars in other sectors. Then I concluded my letter to Kurtz: "I think this procedure fits very well with all your concerns about the selection of the sample and all possible contradictions in my research."

Kurtz establishing himself the complete list of the athletes of the *Dictionnaire des Sports, whether they are "great" or "lesser great,"* seems the best test for bringing the proof that the Mars effect exists or does not exist. Despite my repeated requests, I had to wait a year for a clear answer (letter from Kurtz of July 27, 1981). And the answer is no, he does not want to do the study. Amazingly, he states, in the same letter: "Examining all the names in the *Dictionnaire des Sports* without any selection would be another important effort of replication of the Mars effect" (!). Well, if it is so, why did he wait so long for finally refusing the offer? I think Kurtz, Zelen, and Abell decline to carry out the experiment because they fear that the Mars effect will still show up, even if no selection at all is made among athletes. Could the readers of the SKEPTICAL INQUIRER find a better explanation?

Michel Gauquelin
Paris, France

Abell and Kurtz respond:

In our judgment, the United States test of the "Mars effect" was conducted openly, fairly, and in good faith. In a meeting between Gauquelin, Abell, Zelen, and Kurtz in July 1977, before embarking on our investigation, we discussed the directories to be used. We sent for the birth data of all the athletes from five Who's Who*s who were born in the states that did not (because of the Privacy Act) specifically refuse to supply such data. We believe that all 408 of the athletes in our sample, by virtue of making their way to the highly competitive field of professional athletics, or the equivalent in international amateur competition, should, if the Mars effect were real, display the aggressive "Mars temperament" hypothesized by Gauquelin.*

We followed the same protocol that Gauquelin had used—selecting names from the Who's Who*s and then requesting birth data from registry offices. Our test was not performed "in secret," although we are aware of no reason that we should have been obligated to inform, obtain consent, or obtain approval from Gauquelin or anyone else before embarking on our own attempt at an independent replication of the "Mars effect" in a U.S. sample of athletes. Nevertheless, we attempted to keep Gauquelin informed of our investigation as we proceeded. A memo dated March 27, 1978, was given to him outlining the work in process, and we sent him photocopies of all the data gathered.*

In fact, it seems to us that Gauquelin did the same thing in his original study; there were no safeguards or double blinds so far as we know. And, indeed, his study was at least *as "secret" as ours. The Gauquelins were the only ones to compile their data, calculate the Mars positions, and interpret the results.*

In any case, the results of the U.S. test of 408 sports champions were negative. Mars appeared in the first and fourth sky sectors only 13.5 percent of the time, even less than the 17 percent expected by chance.

Concerning Gauquelin's second point, he published a statement in the SKEPTICAL INQUIRER *(Summer 1980) saying that he had made another effort at a replication in a study of 438 European sports champions. However, he said that 423 "lesser" champions had been deleted from his original sample. We have repeatedly requested the list of*

lesser champions—because we have questions about his criteria for inclusion—but up to the time of this writing he has refused to supply us with the list.

Our queries still remain unanswered by Gauquelin: On what basis does he decide who is a famous *or* great *sports champion? Why is being listed in* Who's Who *not a sufficient criterion? Why do well-known sports champions (Gauquelin calls them "lesser" champions) not manifest the "Mars effect"?*

Instead of responding to the points raised in our rejoinder, Gauquelin proposed that we become personally involved in a new study. We have declined to do so because, first, we have neither the time nor the resources to obtain birth data ourselves on the European athletes listed in the Dictionnaire des Sports. *Moreover, we note that the only claims for a positive "Mars effect" are those based on data collected by Gauquelin himself. We are concerned that most, or even all, of the athletes listed in the* Dictionnaire des Sports *must have been included in one or the other of the studies Gauquelin has already performed, in which case he knows in advance the Mars sectors for the athletes. If so, a "new" study would hardly be either "new" or "independent."*

On the other hand, we understand that a group of French scientists are willing to do an independent study. We await their results, and hope that they will prove to be enlightening.

Chatelain's Satellite

The "Maltese Cross in the Aegean?" piece by Robert W. Loftin, (*SI*, Summer 1981), relative to the fourth chapter of Maurice Chatelain's book, has a basic unchallenged flaw. Chatelain theorized that "a fixed-position space satellite that turns synchronously at the Delos latitude of 37°23′ . . ." would be required "to measure and mark all the salient points" of the Maltese Cross.

Synchronous satellites can only be "synchronous" if they are positioned directly over and about 25,000 miles above the earth's equator. There is no way a satellite orbiting the earth can be "fixed positioned" at a latitude of N37°23′. It could be caused to orbit to that latitude, but it would move south to S37°23′ in 12 hours and back again in 12 more hours following a figure-8 path with the middle of the 8 at the equator.

Aside from this oversight, I enjoyed Professor Loftin's explanation of the alleged Maltese Cross and fully agree with his thoughts on the matter. I'm sure that, given enough time and work, a near perfect fitting in the Aegean Sea will surrender an exact likeness of Donald Duck!

I would like to compliment the committee and staff for an excellent journal for "Truth." With bombardment from all forms of the media presenting the paranormal as fact, it is no wonder that the general public is getting brainwashed. The SKEPTICAL INQUIRER is helping to neutralize some of this propaganda.

William H. Holliday
Richmond, Va.

I have not read M. Chatelain's book, but if his thesis requires that "ancient astronauts" established (as Mr. Loftin quotes) "a fixed-position space satellite that turns synchronously at the Delos latitude of 37°23′," then M. Chatelain has a problem. Such a satellite can't exist, at least if it orbits freely under no influence but gravity. (And if it doesn't, it needs a truly incredible amount of energy to keep it in position—so much that we must really wonder why a species capable of interstellar travel would bother to expend it on our then-primitive selves.)

A geosynchronous Earth satellite is not truly stationary; it orbits Earth's

center just as any other satellite in a circular orbit does. Its orbit plane must pass *through* Earth's center, given the symmetry of gravity. Thus if its orbit is inclined, by any nonzero amount, to Earth's equatorial plane, it cannot possibly stay over any given place on Earth's surface . . .

Place a satellite, *with geosynchronous period* (i.e., it orbits Earth exactly once per 24 hours) over Delos, and it won't stay over Delos; it will visit Delos's overhead point only once per day, meanwhile tracing a figure-8 ground track that carries it from Delos's latitude in the Northern Hemisphere all the way to the same latitude in the *Southern* Hemisphere—over 5,000 miles south of Delos.

Jim Loudon
Staff Astronomer
Exhibit Museum
University of Michigan
Ann Arbor, Mich.

Psych Students' Beliefs

In his letter in the Summer 1981 issue about the research of Singer and Benassi (Winter 1980-81), Wolf Roder argues that psychology sophomores are not generalizable to the general population. I wish he were right, but there is every indication that belief formation and belief systems in California psychology sophomores are not significantly different from what they are in college students elsewhere. Introductory psychology is the most popular course at most universities, so we get a wide variety of students. I was "human subject coordinator" at Cal State, Long Beach, as a graduate student; we had thousands of students taking Psych 100. Here at OSU, 10,000 students pass through Psych 100 each year. My "advanced general" psych class last term had only three or four students who knew anything about psi—making it difficult for me to support Roder's claim that "the sort of person to enroll . . . is predisposed to belief in mind bending metal." Self-selection bias *is* a big problem in social science research, but not among randomly assigned Psych 100 students such as those in the Singer-Benassi study.

Another point he brings up really hurt! "Considering ... therapies effective without evidence . . . psychologists are especially credulous ..." Yes, many clinical psychologists are often as scientifically biased as many theologians. However, Singer and Benassi are both experimental psychologists who are no more impressed with pop therapies than your average geographer!

Also, as I made clear in my article in the Fall 1980 SKEPTICAL INQUIRER, psychologists are the *least* believing in ESP of all academic disciplines. And *experimental* psychologists are much more skeptical than *clinical* psychologists.

Vernon R. Padgett
Department of Psychology
Ohio State University
Columbus, Ohio

Piltdown and Castaneda

In the light of L. Harrison Matthews's brilliant essay on the Piltdown forgeries (*New Scientist*, April 30-July 2, 1981), I wish to revoke my acquittal of Charles Dawson ("Don Juan vs. the Piltdown Man," *SI*, Spring 1980) and identify him and Carlos Castaneda as the primary culprits in the two hoaxes.

Matthews speculates that Martin Hinton and Pierre Teilhard de Chardin wished to expose the forgeries by planting additional, absurd evidence at the Piltdown site but were defeated when certain key scholars accepted every new imposture as genuine no matter how absurd it was. Likewise, Castaneda mocked his fans by writing ever more provocative fantasies but did not thereby disillusion his truest

believers. In the two hoaxes, thorough disillusionment required explicit exposures, by J. S. Weiner and your correspondent, respectively.

Richard de Mille
Santa Barbara, Calif.

The writer is the author of Castaneda's Journey *and editor of the* Don Juan Papers.—ED.

Exposing Distortions

I write to commend the SKEPTICAL INQUIRER. It is one of the very few protesting voices against the tide of irrationality. I have been a subscriber for three years now and look forward to each new issue, which I read from cover to cover the day I receive it. In my youth, I believed wholeheartedly in all claims of psychic phenomena. Over a period of years of studying science and psychology, I came to realize how naive I had been and became highly skeptical of any claims not thoroughly substantiated.

Your publication performs an important service in educating the public with stimulating articles and exposing the deceptive and at times ludicrous distortions of many supernatural claims.

Bryan Sellers
Cincinnati, Ohio

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The Committee for the Scientific Investigation of Claims of the Paranormal

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- Maintains a network of people interested in critically examining claims of the paranormal.
- Prepares bibliographies of published materials that carefully examine such claims.
- Encourages and commissions research by objective and impartial inquirers in areas where it is needed.
- Convenes conferences and meetings.
- Publishes articles, monographs, and books that examine claims of the paranormal.
- Does not reject claims on a priori grounds, antecedent to inquiry, but rather examines them objectively and carefully.

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